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RAILWAY AGE

The Railroads Have Won a Battle; But the War Is Still On

The railroads appear to have been successful in their campaign to convince the public of their ability to handle any volume of traffic likely to be offered. This effort was necessitated by the campaign of Socialists and Communists seeking to turn every bit of evidence of railroad distress into a proof of the failure of *private* enterprise. There is no weakness in the present situation of the railroads which was not put there by politics. Withdraw from them—not reasonable regulation necessary to prevent unjust discrimination—but *purely arbitrary* discrimination in favor of their competitors, and no one would have to worry about their ability to bear any load the future might place upon them.

The Socialist and Communist campaign for government ownership parallels that of the Nazis against Austria and other countries which they have invaded. Nazis in Austria created disturbances which were difficult to quell, and on the pretext of these disturbances Austria was denounced by the Nazis as unfit for self-government, and taken over. Similarly, the Reds and Pinks in this country put every conceivable obstacle in the way of the successful private conduct of railroad—aided by stooges of Big Business who dislike socialism but like Socialistic policies that deprive the railroads of traffic. Then these Left-Wingers point out all the weaknesses of the railroads for which they and their Big Business cohorts are responsible, and demand that the railroads having been wrecked by them, they shall be permitted to take them over and run them. Well, it has worked in Europe. Perhaps, eventually, it will work here.

The Railroad's Achievement As a Private Enterprise

Meantime, there can be no argument about the railroads' ability to handle any traffic load which can arise in the near future, because they have successfully negotiated the seasonal peak of 1939. If the present level of business should merely be sustained throughout 1940, it will not be until next September that the car-

riers will be called upon to handle as much traffic as last October. On October 1 there were 195 thousand freight cars awaiting repairs—a total which, perhaps, could be cut in half. On the rule-of-thumb basis which requires two serviceable cars for each car loaded in a week at the peak of traffic (and the railroads can do somewhat better than that), it appears they can be prepared to handle a peak of over 900,000 carloads weekly next fall, provided they buy enough new equipment to offset retirements. If, however, throughout the next year there should be a more-than-seasonal increase of traffic, as throughout 1936, they would need to acquire proportionately more equipment than would be required for replacements.

From a standpoint of ordinary business prudence, it would be difficult to justify preparations to handle possible increases in traffic any greater than may be indicated by the trend of traffic during the next six months. Idle capacity does not earn any return. We speak here solely from a standpoint of *capacity*, and not of the *greater economy of new equipment*. The railroads, in short, have done thus far all and more than all they could reasonably be expected to do with the meager earnings available; and thus their campaign of publicity to impress the public with their readiness to meet probable demands has been justified. Socialist and Communist propaganda alleging that a railroad breakdown is imminent, and that this is ascribable to a "failure" of private enterprise, has been shown to be false and intended to undermine a private enterprise that is much better prepared to serve the nation in an emergency than the government itself—if the highest officers of the army are to be believed.

What is the Matter with the Railways?

The long-range outlook for the railroad industry is quite another matter; and it seems advisable to emphasize, in conveying to the public the extent of the railroads' preparedness, that the idea be not oversold. It would be as untrue as it would be unfortunate for

the public to acquire the conviction that, somehow, all of a sudden, the future of the railroads had become bright again—without any of the fundamental handicaps under which they struggle having been removed.

They are like an old horse which has been half-starved for years. We are now giving him a couple more handfuls of oats each day; we can get more work out of him now than we have been getting; and, of course, he isn't going to curl up and die on us right now. But those extra handfuls of oats are not going to make Old Dobbin a prize draft animal; and in the long run prolonged starvation will do its perfect work. Instead of feeding properly the horse we have, and making him work hard in proportion, we Americans seem to prefer to buy two or three times as many horses as we need, and half-starve them all.

The railroads could perform all the transportation now being done by inland waterway with little or no additional *capital* expenditure. And they could take over all the long-distance freight now moving by highway at great savings, not only in capital expenditures, but in operating expenses as well, which are being indirectly borne by the public with the result of making the cost of the transportation rendered by all carriers grossly excessive. The persistent diversion of traffic from more economical railroads to less economical highways and waterways arises from two causes—

1. The enormous subsidization* of highways and waterways and the meager regulation† of most of the traffic moving over such routes.
2. The failure of railway rates adequately to reflect the true economy of railway service in many competitive situations.

The Bamboozlers of the Public

Most people who know anything about transportation, and are not on the payrolls of special interests benefiting from the subsidization of waterways and motor carriers, are fully aware of the importance of the first cause mentioned. But such informed persons are flabbergasted at the task of trying to effect a cure of the present transportation situation through working on cause No. 1, because of the tremendous wealth, influence, genius for publicity and carelessness of fact or principle of the defenders of highway and waterway subsidies and other favors. Not only have other carriers got the wealth and prestige of the most prosperous segment of American industry at their command, to assist them in keeping the public bamboozled,

* One frequently sees a statement by a propagandist, and occasionally by a scholar, to the effect that motor transportation is not subsidized. None of these statements is substantiated, however. Supporters of this point of view simply attempt to justify on sociological grounds the immunity of investment in highways from levies for the general support of government, and to justify paying for highway transportation in part by levies on the taxpayers rather than on users. In short, while there are many persons who attempt to justify subsidies to highway transportation, there are *none* who make any serious denial of the existence of such subsidies.

† Interstate common carriers by highway (except of agricultural products and some other commodities) are, of course, subject to regulation by the I. C. C. But commercial carriers by highway which are entirely exempt from regulation, or are regulated largely on paper only, far outnumber those which are subject to effective regulation. Water carriers, of course, are regulated most meagerly—many of them not at all.

as Doctor Goebbels bamboozles the poor Heinies; but they have got several government bureaus in cahoots with them, lending an aura of official holiness to activities which, legal though they be, at bottom are about as ethical as a stick-up.

This observation is no counsel of despair. Merely because these interests have most of the money and publicity genius and almost all of the gall is no reason for letting them get away with what they are getting away with without a persistent battle. There is one advantage that a cause has when it is sound—when a recruit is won for it, he stays recruited. But when one's cause is unsound and fundamentally anti-social, as is that of the National Highway Users' Conference and the Mississippi Valley Association, its success depends on relentless activity to continue distracting the attention of the public from the real issues. Theirs is the hard job of fooling most of the people all of the time—and, despite all their money and skill, such a job is a large order.

Senator Reed Calls a Racket—a Racket!

That there can be developed powerful political opposition to the racketeering transportation policies favored by the Reds, Pinks and certain Big Business interests is strikingly indicated by the address delivered by United States Senator Clyde M. Reed of Kansas at the luncheon of the National Industrial Traffic League in Chicago last week. Senator Reed's address was so significant for several reasons. He knows more about transportation, the effects of present government policies on it, and what Big Business interests promote and defend these policies for their own selfish purposes, than any other man now in Congress. He views the transportation scene especially from the standpoint of the farmer, because he has an agricultural constituency and for years represented agriculture against the railways in rate cases before the Interstate Commerce Commission; *and the future of the railways will be determined principally by the farmers.*

Senator Reed's election as both governor and senator shows he knows his way around in politics; and he didn't pull his punches as shown by the part of his address quoted in the *Railway Age* of November 25, pages 817 and 818. He denounced all government policies of regulation and subsidization that discriminate between different classes of competing carriers, declaring the time has come when all should be made to stand on their own feet under equal regulation and without subsidies. He especially denounced most so-called "inland waterway improvement" as a racket conducted by men employed by certain business interests to get these interests unfair advantages not only over the railways, but over the farmers and other business interests at the expense of all the taxpayers of the country. He declared that "farmers as a whole have not profited one cent by the billions of dollars spent on 'river improvement';" and said, "I find it difficult to make a distinction between

Tom Pendergast (ex-political boss of Missouri who is now in prison) taking a million dollars out of the Kansas City treasury and Missouri river promoters inducing the United States to waste 200 million dollars trying to make the Missouri river navigable."

The N. I. T. League Votes for Continuing the Racket

The National Industrial Traffic League is composed of traffic managers of big corporations and Chambers of Commerce. It later voted by a small majority to continue its opposition to charging any tolls on and to any regulation of inland waterways, and it refused to favor any reduction of railway regulation, although some of its members demanded that it abandon this inconsistent policy regarding regulation. All of which simply illustrates what the *Railway Age* has emphasized repeatedly—that, although all business, especially all Big Business, professes abhorrence of government-aided competition with private enterprise, a large part of Big Business, when put to the test, supports any government policies by which it believes it can gain, absolutely regardless of their cost to the public or their effects on private enterprise or the public welfare.

But there is no reason for the railways and those advocating fair government transportation policies being discouraged. The stooges of piratical Big Business in the National Industrial Traffic League who voted against treating water transportation like rail transportation do not, as the vote showed, represent all business. And **Big Business is still very unpopular with the people, and can in time be made very tired of having its unpopularity increased by exposure to the people of the racketeering policies of the more predatory part of it.** The railways, if they will try hard enough, can convince the farmers and most business men, large and small, that every present government transportation policy discriminating against the railways is just what Senator Reed called present inland waterway policies—viz., "a damn racket" operated for the benefit of predatory business interests.

One by one people will get wise to the fact that to pay \$2 of their own money in taxes to "save" somebody \$1 in a freight bill is poor economy—especially for those who do the paying and don't get the saving. One by one, the John Q. Taxpayers all over this country will learn that they are paying more even for their gasoline and automobiles than if tax-subsidized transportation did not exist, and that the "savings" of these socialistic transportation agencies are going principally into the jeans of part of Big Business. When that time comes the farmers and business interests being preyed upon will do what is necessary to protect themselves, and, incidentally, the railways.

"Charging What the Traffic Will Bear"

The only trouble with this process of education is that it is slow. So, while helping along the educational

process—the cure for cause No. 1 of the railroads' difficulties—the carriers, it seems to us, could well afford to devote more attention to the correction of cause No. 2—viz., the failure of railway rates to reflect, on competitive traffic, the true economy of railroad service.

The details of this failure of the railroads to hold all the traffic that they could afford to hold—that is, all traffic the handling of which would increase gross earnings more than it would increase expenses—have been explored in the series of articles we have published entitled, "What Will the Traffic Bear?", and we need not dwell on them here. Suffice it to say that, in general, there is a lot of traffic now moving by truck and waterway which the railroads could handle more cheaply than these rivals despite all the tax help to the latter. The railroads can, in short, while still preserving a margin of profit on it, make rates on such competitive traffic which will be too low for their competitors to meet and still continue to operate. Such rates are decidedly in the public interest, preserving to the public the "inherent economies" of railroad service, while not invading the fields where the actual "inherent economies" of waterway or motor service are superior.

"Charging what the traffic will bear" has been largely abandoned under the pressure of government regulation. Whatever views may have been expressed in the articles on this subject we have published, it formerly meant that if a particular kind of traffic could bear a relatively high rate it should be charged a relatively high rate; that if it could bear only a very low rate it should be charged a rate low enough to get it, provided the revenue would more than cover out-of-pocket expense; and that *the competition of other carriers—including other railroads—should be considered in determining what rates it would bear.* Under that practice freight rates in this country steadily declined for many years before effective government regulation. If the railways try really to revive it they will meet with opposition from other carriers, and probably from regulating authorities. But its revival would be in the interest of most producers, shippers and the public, and it should be possible to convince them of it.

Railroad Publicity Should Not Create a Wrong Impression

A concerted movement of the railroads for more rates based on what the traffic will bear should serve the purpose not only of getting a lot of tonnage back onto the railroads to which, in the public interest, they are entitled, but **such rate-making should focus the attention of the regulatory authorities—and ultimately that of the lawmakers and the intelligent public—on the crucial question of the comparative economy of the various competing agencies of transportation, and of why government should persist in policies diverting traffic from the more to the less economical agencies.**

In sum, it seems to us that, while the railroads' defense of their readiness to meet increasing traffic de-

mands is both truthful and necessary—nevertheless such statements should carefully avoid conveying the impression that any progress has been or is being made toward the solution of the country's transportation problems. No such progress can as yet be truthfully reported. Traffic is still continually being diverted from economical handling by railroad to more costly handling by rival agencies of transportation; and as long as that trend continues America is headed inevitably, at least as far as transportation is concerned, toward a dimin-

ishing national income and a lower standard of living. Paying for transportation through the tax collector, instead of into the cash registers of private business, should not be permitted to hoodwink the people into the belief that they are getting their transportation cheaper and cheaper all the time. They are paying more and more for it all the time by spending wastefully, on the duplication of means of transportation, money which they sorely need for other necessities—decent housing, for instance.

Are Cost-Competitive Rates Inevitable?

Are prescribed minimum rates necessary to the preservation of sound economical national transportation, and, if so, are costs the soundest method for determining such rates in the public interest? We have submitted a discussion of this question to several outstanding practical students of transportation and have received this typical response:

"I believe it [the discussion favoring prescribed minimum rates based on costs] discusses principles which are soon to be applied in fixing rates of competitive means of transportation, and this whether or not either you or I think the application of such principles is in the public interest, which is, of course, a very big subject.

"For my part, I have always opposed the minimum rate power, but I suppose my attitude has been based on my belief in rugged individualism and in the soundness of the competitive principle. However, our transportation system has gotten into such a dangerous condition from the standpoint of continued service to the public that it is probably necessary to do something to prevent unwise and cutthroat competition.

"Certainly something is necessary to preserve our rail transportation system, and it does not seem fair to let the competitors of the railroad take the cream of the traffic, to which they are probably entitled from an economic standpoint, and then use the proceeds of that traffic to take traffic from the already crippled rail carriers that could be handled more economically by the railroads. It seems to me that your suggestions are quite sound as to the reduction in both the rates and the minima and I believe that the trucks should not be permitted to go below reasonable costs in meeting such changes.

"When it comes to increasing the rail rates for long haul traffic, I doubt whether anything can be accomplished along these lines because present rates are losing the railroads' business by re-location of industries and substitution of commodities that do not have the long haul for commodities that do have such hauls."

The application of this principle should enable the railroads to recover a great part of the traffic they have lost to the trucks. The average capacity of trucks engaged in inter-city transportation approximates 10 tons. If we eliminate return on investment from the I. C. C. unit cost study, the costs even for 10-ton rail loadings compare favorably with truck costs, as shown in the accompanying table.

Railroad unit costs for 10-ton loadings approximate truck costs at 180 miles and are lower beyond that distance. The railroads could meet the trucks on light loadings on a cost basis and make appreciably lower rates on heavier loadings, especially when we consider that trucks can load only heavy-density traffic to capacity. Also, railroad costs for

heavier loadings demonstrate that the railroads can largely meet water carrier costs.

The railroads are justified in going even below these costs in particular situations, because not all of the railroad facilities (included in cost computations) are actually used to handle this competitive traffic, and these could properly be excluded wherever the facility is not necessary to the particular movement being studied. Besides, **trucks and boats select their traffic between large centers. Rail costs in such instances are appreciably below average rail costs.** Additionally, it seems proper to permit the rail lines to use trainload costs, particularly in making rates to meet water and pipe line competition.

Of course, **it is neither necessary nor desirable for the railroads to go nearly as low as their costs except in particular situations.** A sound bottom can be put in the rate structure without doing violence to present rate levels, and such use of costs would greatly improve railroad traffic and net revenues.

It is almost axiomatic that mass production of a given service reduces its unit costs. The public utilities have encouraged such development by basing their prices upon the quantity used and the costs incurred in the production of the greater volume. There appears to be no sound reason why the railroads could not advantageously employ this sound economic principle in their industry. The greater volume of traffic thus produced for the railroads would enable them materially to lower their unit costs and make for a more stable condition in the industry. It would also enable them to make even lower rates wherever necessary to encourage greater patronage and thus insure the greatest utilization of rail transportation.

Truck and Rail Costs Compared

Miles	Truck Cost,* Cents per cwt.	Rail Costs,† Cents per cwt.				
		10-ton	15-ton	18-ton	40-ton	50-ton
10	8	10	7	6	3	2.5
50	10	14	9	8	4	3.5
100	12	15	11	9	5	4
200	20	19	13	11	7	6
300	28	22	16	14	8	7
400	36	25	18	16	10	9
500	44	28	21	18	11	10
600	52	32	23	20	13	12
700	60	35	26	23	14	13
800	68	38	28	25	16	14
900	76	42	31	27	17	16
1000	84	45	33	29	19	17

* 12 cents per mile line haul, 4 cents per cwt. terminal, 20,000 lb. minimum, 50% return load.

† I. C. C. Statement 3681, box car loadings.

BRITISH RAILWAYS AT WAR



All Train and Engine Crews Have Tin Hats to Wear During Air Raids—at Top of Illustration Bar Carrying Curtain is Shown (Used at Night So Air Raiders Won't See Light from Firebox)

By C. E. R. Sherrington

THE war regime on the British railways commenced at midnight on August 31, when the Minister of Transport, acting under the authority of the Emergency Powers (Defence) Act, 1939, issued an order taking over control of the four main line companies (Southern, Great Western, London Midland & Scottish and the London & North Eastern) and the London Passenger Transport Board, together with their jointly-owned lines and five small local railways.

This action was, however, purely a formality, since the railway companies had, for many months, been working in close co-operation with the various government departments in the preparation of elaborate plans to insure their being ready to carry out the special tasks which would be thrust upon them in the event of a war emergency and to protect them as far as possible against aerial attack.

Government Control, Not Ownership

These plans, some of which were in active operation before the railways were taken over by the government, may be considered under three headings:

1. The provision of special services for evacuation and military movements;

2. The adjustment of ordinary services to meet both the altered traffic requirements and operating conditions likely during the war;

3. The protection of staff and property and the continued operation of services in the event of enemy action, particularly aerial attack.

It is important to realize that the present regime of government control does not mean government ownership. The individual companies still exist as before and their own officers and staffs are still responsible for the actual operation of the lines and, in some matters, are still subject to their boards of directors. It is essentially the *control* which has been taken over by the government, and the Minister of Transport has appointed a committee (the Railway Executive Committee) consisting of the general manager (i. e., president) or an equivalent officer, of each company to act as his agent for the purpose of giving directions under the order taking over the railways.

The actual financial arrangements for the trans-

fer and the basis of compensation to the railways have not yet been finally settled.

1—Evacuation and Military Movements

It was the government's intention to evacuate school children and certain other classes, such as invalids and hospital patients, from London and other large cities, and plans were made for moving upwards of three million people over a period of four days. The decision to put the evacuation scheme into force was made on Thursday, August 31, and it began on that day in Scotland, and the following day in the remainder of Great Britain.

In the London suburban area, normal morning and evening trains were maintained each day to cater for the regular commuter traffic, while during the day the lines were mainly given over to the special evacuation trains—skeleton services, but on a fairly liberal scale, being provided for the general public.

The parties being evacuated were taken either by bus or Underground railway from 72 selected Underground stations, and transferred to the main line railways at stations a short distance from their London terminals to be conveyed by special trains (or in the case of the Southern Railway with its electric services) right into the country by regularly scheduled trains which were cancelled only insofar as the general public was concerned, to selected distributing stations in the country. They were then conveyed by bus to the villages in which their new homes were situated. In general, suburban trains which had brought in city workers and would normally have remained empty in yards until the evening were used and were returned to London again in time for the evening rush hours.

For those parties traveling long distances, trains composed of main line coaches were provided and these were sent back empty at night for use again the following day. Similar arrangements, but on a smaller scale, were adopted at other cities in addition to London, but in many cases buses were used for the entire journey. The distribution of the parties was arranged on a regional basis with a view to avoiding cross movements and reducing traveling to a minimum. Tickets were not issued and the question of payment is being adjusted between the railways and the evacuation authorities.

The number of passengers conveyed under these official projects was 1,300,000, a figure which was less than anticipated, but this does not detract from the efficiency with which the arrangements were carried out. To meet the requirements of the London area alone, some 1,500 special trains had to be run by the main-line railways. There was not a serious hitch or casualty reported, and the success of the movement is more remarkable when it is remembered that the parties were composed mainly of children whose nerves were strained at being parted from their parents and by the fear of war, and hospital patients who were conveyed in motor coaches converted into temporary ambulances. The transport men fully merited the tributes received from the Minister of Transport and the representatives of other public bodies associated with the movement.

The regularly scheduled services for the general public were remarkably well maintained throughout the period which lasted three to four days, and at times ordinary traffic was heavy on account of families who were evacuating privately, government offices and firms moving to premises they had acquired outside London, and members of the Air Force, Army and Navy reporting for duty at the various centers—movements which often involved either special trains or the operation of regular trains in sections. Other special traffic handled during

this period were art treasures, loaded in railway containers for conveyance to places of safe storage, and certain foodstuffs and other commodities removed from storage at the ports to other centers.

A large number of special trains has also been run in connection with troop movements, and, while it is not yet possible to disclose details of these or the routes used, some idea of their extent may be gathered from the War Minister's statement in the House of Commons that the British Expeditionary Force of 158,000 men and stores had been transported from all parts of Great Britain to France in the first five weeks of the war. The railways certainly bore a large share of this movement to the ports and carried through their plans with wonderful secrecy, and a high standard of punctuality.

On the freight side, perhaps the most interesting feature was the delivery of the portable steel air raid shelters which the government supplied to householders in the more vulnerable areas for erection in their back yards. The different parts of the shelters were manufactured by several firms in various parts of the country, particularly South Wales—and in co-operation with the Ministry of Home Security and the British Iron & Steel Federation, the railways undertook the collection of the finished parts from the plants of 89 different manufacturers, their conveyance to destination stations, collection, delivery and placing on the actual site in accordance with the householders' wishes. The first deliveries were made in the early Spring, and by the end of October 1,600,000 shelters had been delivered. An interesting point in this connection was the co-operation between the railways and truck operators who in the national interest placed their trucks at the disposal of those in charge of the project.

2—Adjustment of Train Services and Traffic Facilities

It was anticipated that war conditions would result in the passenger train services having to be seriously curtailed in order to have the maximum line capacity available for freight traffic which would be greatly increased on account of military traffic and greater industrial production, the diversion of traffic from highways as a result of gasoline rationing and from coastal shipping on account of enemy naval action. Additional traffic would have to be moved by day on account of the difficulties of night operation, since virtually all normal outdoor lighting has to be kept permanently extinguished.



"Blacking Out" a Skylight at Euston Station, London



Hand Signaling Is Done With a Shaded Dark Lantern

The high-speed streamlined trains, i. e., "Coronation," "Coronation Scot," "Silver Jubilee," "West Riding Limited," "East Anglian" and certain all-Pullman expresses and all special excursion trains were withdrawn at once, but, except for the evacuation period, normal services were maintained on many lines until the introduction of emergency timetables on September 11. These had been drawn up with the knowledge that military, naval and air force requirements were rapidly increasing, that the available line capacity was being heavily taxed in consequence, that enemy air raids must be anticipated and a variety of exceptional emergency demands might be made upon the railways.

All cheap tickets (except monthly round-trip, workmen's and commutation tickets)—dining car services and seat reservation facilities were withdrawn, and the train services were both drastically curtailed and decelerated—in some cases the opportunity was taken of entirely withdrawing passenger services on certain unremunerative branch lines. The measures caused much public inconvenience as well as overcrowding, and produced serious complaints, which were, however, closely studied and relieved as rapidly as the circumstances permitted.

As the situation cleared up, it was found possible to effect various improvements. Additional trains have been provided, though at the somewhat lower speeds generally prevailing in the interests of caution and safety. The first printed emergency timetables appeared on October 2, but such further improvements have been made that they are, in practice, partially out of date. Cheap day excursion tickets, with certain restrictions as to use during peak hours in the London area, were reinstated on October 2, and dining cars covering more than 140 services on October 16; a limited number of sleeping cars have been maintained throughout and an ample service is now provided.

Flow of Traffic Has Widely Shifted

The train services are rapidly being adjusted to the altered flows of traffic, i. e., changed working hours of business (offices and shops are both opening and closing

earlier to save light and enable their staffs to get home before dark), the desire of parents to visit evacuated children and of the staffs of evacuated firms to return to their homes for week-ends, and are becoming reasonably adequate and comfortable under the new conditions, although the railways lost much of the public goodwill earned by the success of the evacuation arrangements. Such a consequence was, perhaps, inevitable as, although full publicity could be given to the evacuation arrangements after they had taken place, information had necessarily to be withheld in the national interest about many other tasks which the railways had to face and the provisions made for a wide variety of contingencies, all measures tending to interfere with their ability to handle ordinary public traffic.

Freight traffic has considerably increased as a result of the greater industrial activity and government traffic, and, to a lesser degree, by the transfer to rail of traffic formerly carried by road and coastal shipping, though the diversions from these two forms of transport have not yet become really important. Operation is, however, much more difficult, particularly at night owing to the black-out and many freight trains which formerly ran at night now run during the day. The necessity for a complete black-out has meant greatly reduced lighting in freight stations, so that no direct light is visible from above, while in the classification yards flood lighting has given place to a few small shaded lights which do little more than enable the staff to recognize where they are—even hand lamps used by the train and yard crews are shaded. In these circumstances operation has had to be

Canada's Railways in the War

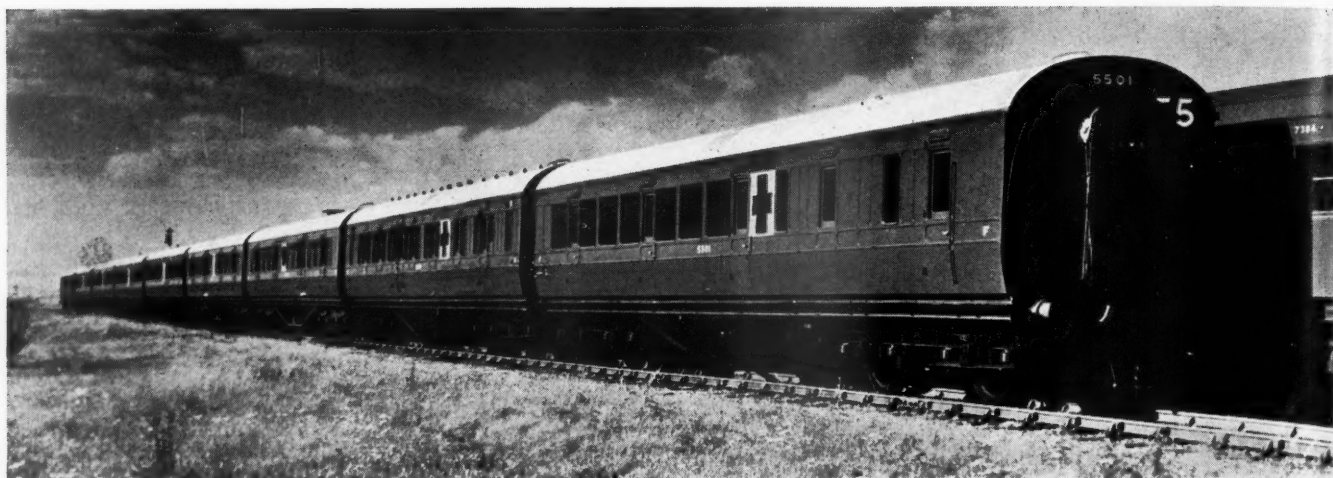
As a complement to this vivid picture of Mr. Sherrington's on the British railways at war, in next week's *Railway Age* will be published a survey of the Canadian railway's contribution to Empire defense—being an abstract of a remarkable analysis presented last week at Vancouver by S. W. Fairweather, the C. N. R.'s research chief.

considerably slowed down just when traffic conditions would normally demand speeding up. In order to minimize these difficulties, all freight must now be labelled with white labels addressed by typewriter or in ink, and consignment notes have to be similarly filled in—formerly pencil was generally used—but some delays are still recognized as inevitable.

C. & D. Service Continued

The "Green" and "Blue" Arrow systems of registered transit under which a shipper could pay a small extra fee to insure any particular consignment receiving special attention to secure a quick transit, and the "C. O. D." scheme under which the railways undertook to collect the value of the goods for the shipper before effecting delivery to the consignee have both been suspended, but the household removal and pick-up and delivery services are still being fully maintained, the latter facility being of particular importance in view of the general curtailment of truck service through the gas rationing and the taking over of a large number of motor trucks by the government.

Undoubtedly the most important development has been



An Ambulance Train for Service in Great Britain

the taking over of the private owners' freight cars and placing them at the disposal of the railways. To appreciate the importance of this, one must bear in mind that coal traffic in Great Britain is generally conveyed in privately-owned freight cars belonging to various collieries or coal merchants. Each merchant usually receives his coal in his own cars or in those of the colliery from which he obtains his supplies, and the empty cars have to be classified and returned to the particular colliery concerned, involving much wasteful haulage and switching. These coal cars can now be used by the railways as they find necessary, thereby considerably easing operating and simplifying the problem of freight car supply. To this latter end, an appeal has been issued to all shippers urging on them the importance in the national interest of their loading and unloading cars as quickly as possible and filling them to capacity so as to avoid any risk of a car shortage.

To the railway enthusiast, perhaps the most interesting outcome is in changes in locomotive operation. The reduction of passenger services has caused a surplus of express passenger engines which are being called upon to haul some of the many additional freight trains—streamlined high-speed Pacifics which formerly hauled such famous trains as the "Coronation" may from time to time be seen pulling heavy freight trains—a phase which may become more common if British freight locomotives again have to be sent overseas as in 1914-1918. Already a number of ambulance trains, composed of baggage cars fitted with beds arranged in racks, and kitchen cars for furnishing food and medical attention for the injured en route, have been prepared for use both in Great Britain and in France.

3—The Protection of Property

As the railways form an obvious object of enemy attack as a means of disorganizing military movements and civil life and frequently present an easy target, special precautions have been taken to make them less conspicuous—particularly at night to minimize the risk of dislocation and to provide protection for the staff against air raids.

The headquarters, consisting of the chief officers and certain of their staffs, have been moved from London to less vulnerable secret sites (usually empty country houses) "somewhere" in the country, and many of the more routine departments and their staffs have been spread out over a number of towns. Train and traffic control offices have been duplicated in special buildings

which are bombproof except against a direct hit, while signal towers, telegraph offices, etc., have been reinforced by additional brick or steelwork or heavily protected by sandbags. Similarly, air raid shelters of steel, concrete or sandbags, or in the form of dugouts, have been provided for employees.

A number of London Underground stations have been temporarily closed to allow of the construction of projects to prevent flooding from burst water or sewage mains, and on the sections under the River Thames, watertight steel doors are being built in the tunnels. These are to be closed during air raids so that, should the underwater section of the tunnel be damaged, the effect will be localized and normal services can run on either side of the river.

The biggest problem is the black-out already mentioned. Virtually no light may be shown at all, and besides considerably slowing down operation, it has created dangers for both the staff and passengers. Most stations are lit with a few low-power blue lights which, besides inconvenience, create problems in checking tickets, studying time bills, train crews reading their instructions and freight car labels in classification yards, and the sorting of mails and baggage. Each passenger compartment has one blue light like a normal night light which just enables one to see how many fellow passengers one has—reading is quite impossible, but the situation is improving. Main line trains are being rapidly equipped with blinds, shutters and shades which will enable full internal lighting to be given; and the latest announcements make it clear that even the suburban traveler will shortly be able to read his newspaper. Dining, Pullman and sleeping cars have been fitted with special blinds which allow of full internal lighting. The needs of the short-distance traveler are the subject of intensive study by the railways so as to provide reading light in trains of compartment equipment. Owing to the existence of separate side doors for each compartment, it is extremely difficult to prevent light showing when doors are opened at station stops; moreover in suburban and local trains without corridors, it would be difficult to ensure by supervision on the part of the train crew that all blinds remained drawn.

In addition to the measures already mentioned in regard to freight traffic, all objects against which employees are likely to hurt themselves or trip over (i.e., switch rodding, lamp, signal and other posts and all kinds of projections) have been painted white, as have the buffer beams of switching locomotives. All locomotives are equipped with sheets which are spread from the cab to

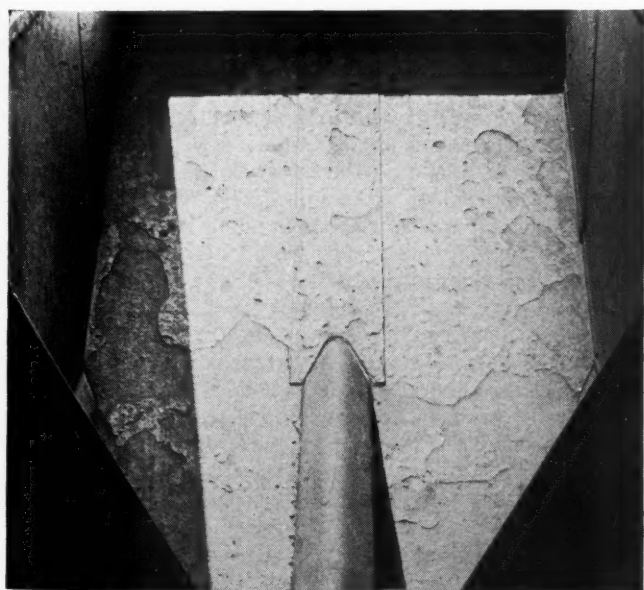
(Continued on page 857)

Service Life of Cor-Ten Steel in Hopper Cars

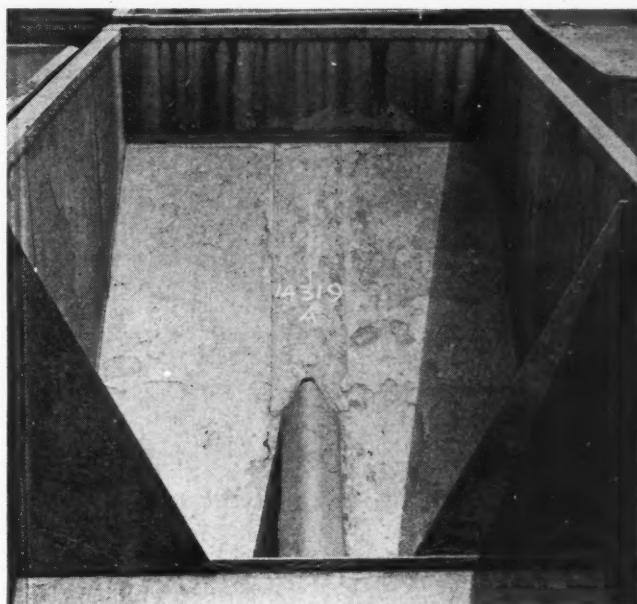
Progress report of comparative tests made in cars with USS Cor-Ten sheets in one end and copper steel or USS Man-Ten steel in the other

WHEN USS Cor-Ten was introduced for railroad car construction, the results of atmospheric corrosion tests were available which showed the resistance of this material to corrosion in various types of atmospheres to be four to six times that of carbon car steel or two to three times as much as copper steel. This superior corrosion resistance was due partly to the fact that the rust which formed on USS Cor-Ten was harder than that on carbon steel or copper steel and that it adhered more tenaciously to the base metal. In view of the differences between the conditions in an atmospheric test and those existing in open-top freight cars, the question arose whether the abrasive action of the lading, especially in hopper cars, would remove the coating from Cor-Ten and cause rusting to proceed in cars more nearly at the same rate as with copper steel.

As this question seemed to have an important bearing on the advantage to be derived from the use of Cor-Ten in open-top cars, the rate of rusting of cars resulting from abrasion and the action of corrosive leachings from coal was studied by the Corrosion Research Laboratory of the Carnegie-Illinois Steel Corporation. The results of this investigation indicated that the corrosion of steel cars was caused principally by exposure to atmospheric conditions and that longer service life would be obtained by using a steel such as Cor-Ten which is much more resistant to severe industrial atmospheres than plain or copper steel.*



USS Cor-Ten Sheets Showed No Defects After 57 Months' Service—Copper-Steel Sheets in the Other End of This Car Were Found Perforated After 30 Months



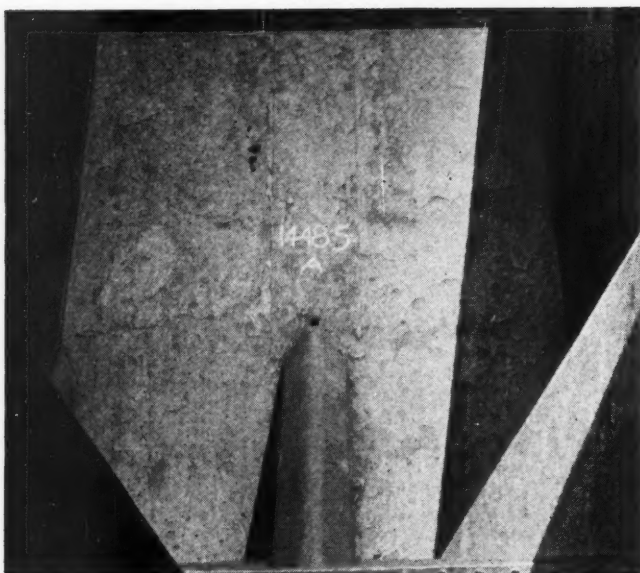
Copper-Steel Sheets Found Perforated After 42 Months—USS Cor-Ten Sheets in the Other End of This Car Showed No Defects After 57 Months

In order to obtain results from actual service as quickly as possible some 50-ton hopper cars owned by the Carnegie-Illinois Steel Corporation were repaired in 1934, using one type of steel in the *A* end of the car and another type in the *B* end. The materials applied for the test included USS Cor-Ten, an intermediate manganese steel, and copper steel. Where copper steel was used, the floors, hoppers, longitudinal hoods, and cross hoods were all $\frac{1}{4}$ in. thick, and the sides and ends $\frac{3}{16}$ in. thick. The high-tensile steels were applied to some cars in these same thicknesses and in other cars the bottoms were made $\frac{3}{16}$ in. thick and the sides and ends $\frac{1}{8}$ in.

All of the test cars were placed in service in November, 1934. Some have been in coal service, but the majority have been handling furnace coke between the Clairton By-Product Coke Works and Carrie Furnaces, making frequent trips of 6.6 miles loaded with coke and returning empty. The cars have had intensive use and carried an average of 567 loads up to July 1, 1939, or 10.2 loads per month.

Since the end of the first year's service the cars have been inspected thoroughly at intervals of about six months. As the principal object of the test was to determine the ultimate life of the material, these inspections have consisted of noting the condition of the bodies and especially any perforations in the sheets, and the

* See "Corrosion of Steel Cars," by G. N. Schramm, E. S. Taylerson and C. P. Larrabee, *Railway Age*, November 28, 1936, page 780.



Copper-Steel Sheets Found Perforated After 30 Months

extent to which the sheets were corroded and worn away. When the test is completed, the loss of weight of each part will be determined.

The condition of the cars now gives definite indications of the relative life to be expected from the materials tested in coke cars and also in other service. Perforations have developed in a large majority of the longitudinal hoods, hopper sheets, and floors. In some cars such failures have occurred in all three of these parts. The sides and ends have shown no failures as yet.

Of the five cars with $\frac{1}{4}$ -in. copper-steel floors, three were found perforated after 30 months' service and two after 42 months' service. The $\frac{1}{4}$ -in. floors of intermediate manganese steel were perforated in the same period, but the general condition of the sheets was better than the copper steel. Three cars with $\frac{1}{4}$ -in. Cor-Ten floors show no defects after 57 months, indicating that in coke service Cor-Ten will last twice as long as copper steel of equal thickness.

Of the two cars with $\frac{3}{16}$ -in. Cor-Ten floors and hoppers, one showed the first perforation after 42 months



USS Man-Ten Sheets Found Perforated After 42 Months—Copper-Steel Sheets in the A End of This Car Were Found Perforated After 30 Months

and the other was intact after 57 months. On the basis of comparing the relative life of copper and Cor-Ten steels after the first perforation the Cor-Ten steel, in 25 per cent thinner gage than copper steel, still gave 40 per cent longer life.

The performance of the intermediate manganese steel in this test brings out some significant facts. This steel has approximately the same strength and abrasion resistance as Cor-Ten. In resistance to atmospheric corrosion, intermediate manganese steel is equal to copper steel. Even though the abrasive action of coke on the floors of these cars is severe, the copper steel lasted almost as long as the intermediate manganese steel. The results indicate definitely that the life of the floor sheets in these hopper cars is affected only to a minor degree by variations in strength of abrasion resistance of the steels tested. On the other hand, Cor-Ten, which, in addition to higher strength and abrasion resistance, has superior resistance to atmospheric corrosion, gave increased life over the other steels almost in the same ratio as the increase noted in atmospheric corrosion tests.

Among the diversified conditions to which steels are subjected in car service, these coke hopper-car floors, with their relatively short life, represent one extreme of intensive service in which the effect of atmospheric corrosion in relation to total deterioration is at a minimum and abrasion is at the maximum. At the other extreme are those parts of cars which receive no abrasion and last as long as they can resist atmospheric corrosion. Tests in which steels have been subjected to exposure in rural, industrial, and sea-coast atmospheres without abrasion have shown that, under those conditions, Cor-Ten has two to three times the life of copper steel. It is noteworthy that in the hopper-car test described above where conditions are so different Cor-Ten again shows almost the same degree of superiority. Because the two types of tests representing opposite extremes of service conditions give such similar results, it is believed that it is conservative to estimate that in any application in freight-car construction Cor-Ten will develop approximately twice the life that would be obtained from the same thickness of copper steel.

* * *

The Kansas City Journal-Post Rings the Bell Again

"Waterways advocates argue that Kansas City's railroad system should be hooked up with water transportation for economical service to the shipper. We have just seen an example of it on the Missouri. Freight aboard three federal barges stranded on a sandbar near Jefferson City has been transferred to railroad cars and is now on its way to the consignees, who otherwise would not have seen it until the annual rise next Spring.

"The Interstate Commerce Commission should establish a special river-rail rate for freight thus rescued. It would be to the advantage of both the railroads and the river enthusiasts. By picking up a piece of change occasionally for rescue work, the railroads could stave off the bankruptcy they face because of subsidized competition. And the river advocates could still enjoy the thrill of a tugboat whistle under the A-S-B Bridge.

"That takes care of everybody except the taxpayer, who pays around 98 per cent of river transportation costs. The ride on which he is being taken is not interrupted by sandbars."

—An Editorial from the Journal-Post.

M-K-T Revamps Purchasing Methods

Errors and congestion avoided by improved system of orders — Four operations in one

AFTER a long period of disagreement with enthusiasts over the merits of the so-called requisition-order methods of purchasing railway materials, the Missouri-Kansas-Texas has adopted a modification of the plan which overcomes weaknesses found in previous systems and incorporates improvements which are believed to distinguish the method as a step in advance of any similar method which has been developed for railway use up to the present.

The requisition-order form is a means devised for combining work so that all papers necessary to purchasing transactions can be prepared with the least amount of rewriting. The M-K-T was among the railroads that felt that the scheme in its original form, while attractive in theory, was of doubtful value in practice. The store department, in undertaking to prepare the purchase or-

ders while writing requisitions for new material, took over work previously performed in the purchasing department. It was not denied that the stores staff could do the combined work in less time than the work could be performed when not combined, but the M-K-T felt that it could not be done without some increase in the store department work. It had also been observed that the purchasing departments on some of the roads using the plan continued to retype much of the basic information in preparing inquiries for prices and were not relieved of the necessity of rewriting many purchase orders because of situations that could not be anticipated when the requisitions were written. The Katy was also making extensive use of the blanket release method of purchasing under which contracts for materials provided for shipments to be made as called for. This reduced

FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5

Steps in M-K-T Purchasing

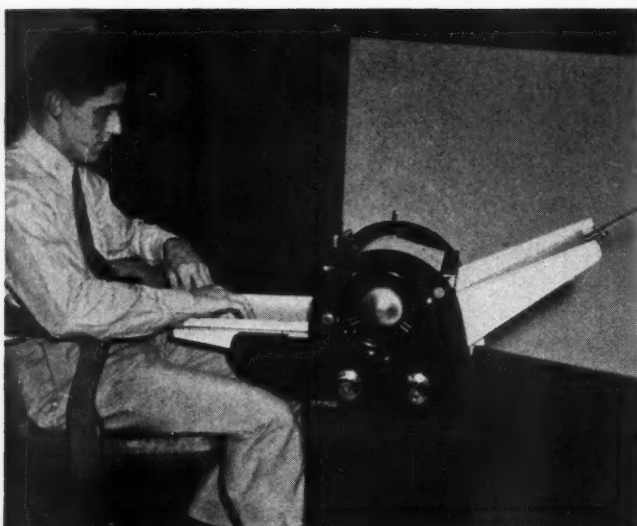
Fig. 1.—Storekeeper's Requisition. Back Side Less (X) Data Used for Duplicating.

Fig. 2.—Additions (Circles) and Blockouts (X) By Purchasing Dept. for Bids.

Fig. 4.—Bids Made in Duplicator. Tabulation Form Same Operation.

Fig. 3.—Additions and Blockouts for Purchase Order.

Fig. 5.—Purchase Order Made in Duplicator. One Copy Is Unloading Report.



Upper—Reproducing Bid Forms and Purchase Orders—
Lower, Applying Addresses and Other Data to Master
Forms Ready for Reproducing

the number of inquiries required for prices and accomplished much of the saving which has been claimed for the requisition-order system.

Novel Features

Misapprehensions about the requisition-order method were largely dispelled, however, with mechanical developments which permit the preparation of price inquiries as well as requisitions and purchase orders and use a duplicating process by which all reproducing work need not be performed in one office or at one time. Further study disclosed opportunities for further improvement and the system was accordingly put into effect on the M-K-T on February 1, 1939. The Katy's system is thus essentially that in use on the Southern Pacific, as described in the *Railway Age* of October 29, 1938, with the following changes:

The original requisition becomes the master copy for the reproduction of inquiry forms and purchase orders but storekeepers prepare only the original requisition and the usual carbon copies.

Price inquiry forms and purchase orders are reproduced from the master in the purchasing department.

Only one duplicating machine is used.

The duplicating operation in the purchasing department is enlarged to include the preparation of an un-

loading report for use at stores in checking shipments of material, as well as to include the preparation of price inquiries and tabulation sheets.

No cardboard masks or stencils need be inserted in the duplicating machine to avoid copying certain of the information on the master sheets when reproducing inquiry forms or purchase orders.

Folded requisition forms are not required in writing requisitions to provide a cover for the reverse side.

No forms are enlarged or printed with extra rule lines to segregate pencil notations from printed information.

No Master Stock Book

The M-K-T has a general store at Parsons, Kan., and three other large stores at Sedalia, Mo., Denison, Tex., Waco, Tex., and the purchasing office is in St. Louis, Mo. While the practice of maintaining a master stock book at the general store for keeping a monthly record of materials at all stores was abandoned several years ago as an economy measure, each store has a set of stock books in which the materials are listed in accordance with the A. A. R. material classification and each store is authorized to make requisitions on the purchasing department. When requisitions are prepared at Sedalia, Denison and Waco the original is sent direct to the general store at Parsons and copies are sent to the two other stores which forward them to the general store, following which the general store furnishes the remaining items or forwards the originals to the purchasing department properly marked to show what material should be purchased. This procedure has been continued under the present plan except that new forms are now used and a master copy for duplicating purposes is made by inserting special hectograph carbon paper in the typewriter immediately behind the first requisition blank so that when the requisition is typed, the information on the face of the original is imprinted on the reverse side. Full length carbon paper is used for preparing typewritten copies of the requisition but a narrower and shorter carbon is used for preparing the master copy to avoid reproducing on requests for bids, records of monthly consumption, quantities on hand and quantities due on the face of the requisition and also to avoid reproducing the purpose of the material, the destination of the shipment, and the approving signatures which are on the bottom of the requisition. A sheet of tissue paper is attached to the requisition after it is typed to protect the back or master side of the requisition from smearing. If items are cancelled at the general store, the face of the requisition is marked with ordinary ink and the corresponding items on the reverse or master side are covered with a plastic transparent tape so that they will not be reproduced. This is the extent of the stores operation.

High Speed Duplicating

The first step in the purchasing department after requisitions are approved is to send out inquiries for prices if competitive bidding is necessary and contracts have not already been arranged with supply firms. The date of the inquiries and the date when bidding will be closed are typed on the requisition and the requisition is then attached, master side up, to the drum of a high-speed duplicating machine capable of reproducing from 100 to 500 copies from one master sheet at the rate of approximately 70 copies per minute. All information on the master copy is reproduced on the inquiry form, with the exception of the maker of the original requisition which does not register because of the black strip purposely

painted across the inquiry form. The inquiry forms are then addressed by typewriter and mailed in open faced envelopes. A form for use in tabulating the bids is also reproduced with the inquiry forms. After the bids are closed and the successful bidder is selected, the name of the company, prices, f. o. b. point, and shipping instructions are typed on the requisition master copy and the duplicating process is again used to reproduce purchase orders and copies. If competitive prices are not required, this intermediate step is eliminated.

In reproducing orders and copies, the date of the inquiry, the date of closing bids and other extraneous information on the body of the master used in making inquiry forms are covered by masking tape following which one purchase order and six copies are made. A white form is used for the purchase order and a blue form for the office copy. The letters of the alphabet are printed across the top of the blue form so that the letters corresponding to the name of the material can be marked to simplify the work of posting quantities and unit prices in the price books. After reproducing the purchase order and blue copy, the prices on the master are covered temporarily with a piece of masking tape. Yellow copies are then made for the use of the receiving store in checking material as it is delivered. Other reproductions include a white copy for the originating stores, two pink copies for the storekeeper's correspondence file, an orange copy for the engineer of tests, and two white copies for routing purposes. The printed forms used in the process are ruled so that the lines on each form match with the corresponding lines on other forms, while blank paper is used for reproducing copies. A paper stock is used that will not smear or absorb excessive quantities of the duplicating ink.

More requisitions are now prepared than previously so that purchase orders can be reproduced with the least amount of rewriting in the purchasing department to segregate material purchased from different firms. This increase in store work is off-set by advantages in other directions. According to S. A. Hayden, purchasing agent, the extra copies of purchase orders save the stores many hours daily in writing unloading reports and expedite the work of posting receipts in stock books because the material is properly described, legible, correct and arranged in stock book order. There is also no scarcity of copies for every need. The unusual rapidity with which orders are now placed on supply firms is also beneficial.

Previously it was not uncommon to encounter delays of a week or more in placing purchase orders, particularly when other work interfered. At the present time it is not necessary to retype inquiries no matter how many copies are made and inquiries and orders not requiring inquiries are regularly completed for mailing the same day that the requisitions are received. Recently the purchasing department was able to take 100 requisitions which arrived from storekeepers at 10 o'clock one Saturday morning and place approved purchase orders and copies in the mails by 12 o'clock noon without any additional force. This expedites the delivery of material and promotes the better regulation of stock.

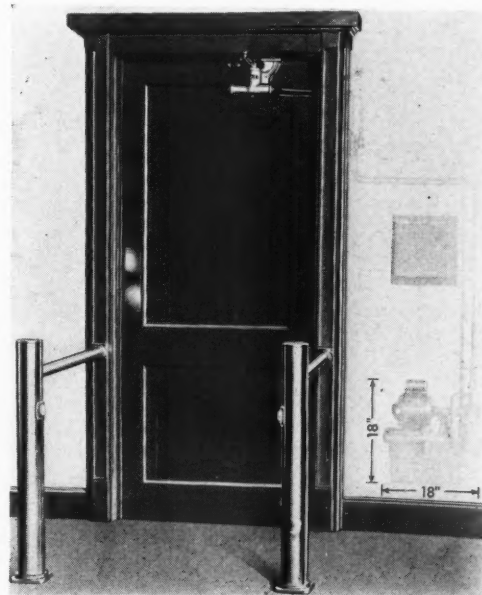
Some rewriting is required but, with the increased care at the stores in preparing requisitions with a view to the source of the material, this is not a troublesome factor. A study of 8,500 orders involving the issuance of 1,192 inquiries to 7,154 supply firms and the preparation of 1,192 tabulating sheets disclosed only 552 rewrites, or a ratio of rewrites to orders of six and one-half per cent. The large amount of work involved under the old method of retyping the basic information on requisitions and checking for typographical errors when preparing in-

quiries and orders has been largely eliminated. Shipments covered by pre-arranged contracts are now released by purchase orders prepared from requisitions and issued by the purchasing department, instead of by requisitions issued direct on supply firms by storekeepers, but the additional detail is slight with the duplicating process and is off-set by the greater facility with which the contracts can be arranged. One feature of the system which appeals particularly to the purchasing department is the protection it gives the office against congestion.

New Automatic "Doorman"

THE Yale & Towne Manufacturing Company, Stamford, Conn., has introduced an automatic door opener and closer, known as the Phantom Doorman, which consists of this company's Yale door closer equipped with electrically-operated hydraulic controls. This device may be controlled by either a photo-electric cell or a switch, or by a combination of these, depending on the individual requirements. It is pointed out that it is adaptable to entrance and connecting doors in railroad stations as well as to doors in baggage rooms, freight sheds and warehouses.

In the operation of this device, hydraulic pressure, supplied by a motor-driven pump, is applied directly to the piston of the door closer in the opening movement. The hydraulic pressure is then relieved and a spring causes the door to close in the regular manner. It is pointed out that the hydraulic pressure is easily regulated and that it cushions the swing of the door at the fully open and closed positions. Since the liquid used in the hydraulic system of the device also serves as a lubricant, it is pointed out that the "doorman" is self-lubricating. Also, it is said that the liquid cannot freeze and that the device is therefore adaptable for use on outside entrance doors under severe weather conditions. When the power is shut off, doors equipped with this device may be opened by hand, in which event they close automatically as in any case where the door closer is used.



View of a Door Equipped with the "Automatic Doorman" Showing the Position of the Operating Equipment



All of the Masonry of the Olentangy Boulevard Structure Is Faced With Cut Limestone

Federal Funds Build Attractive Grade Separation Structures

Three at Columbus, Ohio, on the Chesapeake & Ohio, give evidence of increasing trend toward pleasing architectural appearance

INDICATIVE of the trend toward increased architectural treatment of grade crossing elimination structures, especially within the more important sections of cities and where the public, with state or federal funds, is willing to bear the expense of such treatment, is a group of three overhead railroad bridges completed recently on the Chesapeake & Ohio at Columbus, Ohio. In fact, this group might well be expanded to include two boulevard bridge crossings of the Pennsylvania and one of the Baltimore & Ohio, all within the same general area, but since these latter structures are in many respects similar to the C. & O. structures, and have much the same general appearance, comment in this article will be confined to the C. & O. bridges.

Special Treatment of Masonry

At the outset, it should be understood that these bridges, all built with Works Progress Administration grade separation funds, except for property damages paid by the railroad, are of either ordinary through steel girder or longitudinal I-beam type, with concrete ballasted decks, and are unusual only in the special treatment given their fascia girders, which are painted light gray and surmounted with guard railings of pleasing design, and in the architectural touch applied in the design of their masonry, which, in the case of one of the bridges, is faced with cut limestone in random sizes, laid up with broken joints. At the other two bridges, the masonry is unfaced, but formed in part to a modernistic design and finished with a carefully rubbed surface. The most impressive feature of the structures is that the ends of their abutments are carried up as massive pylons to an appreciable height above the tops of the fascia girders, obscuring the ends of the girders and the track structure, and are flanked by curved wing walls, which are not only architecturally pleasing in themselves, but which provide areas directly in front which lend themselves to effective planting.

The bridges referred to are all on the Toledo subdivision of the C. & O., two of them crossing Fifth and King avenues, approximately two miles west of the Union station, within the heart of the city, and the other crossing Olentangy boulevard at a point approximately one mile west of the station.

Two, Three and Four-Track Structures

The elimination of the grade crossings of Fifth and King avenues involved the raising of two to four tracks over a distance of approximately 7,000 ft., a maximum of 6.68 ft. near Fifth avenue, and the depressing of the roadway pavements a maximum of approximately 12 ft. 1 in. at Fifth avenue, and 13 ft. 4 in. at King avenue.

Both of these crossings involve simple span structures. That at Fifth avenue carries three tracks and crosses the roadway at an angle of 74 deg. 28 min., while that at King avenue, which carries four tracks, crosses the roadway at an angle of 75 deg. 20 min., both providing roadway widths of 40 ft. Other than these differences, the structures are essentially alike, consisting of either three or four entirely independent single-track through girder spans, side by side, each with the usual beam and stringer floor system, supporting a poured-in-place concrete deck. The reason for employing independent single-track spans at each crossing rather than a continuous structure with common intermediate girders between adjacent tracks, was because the spans were designed to be built directly alongside their points of installation and to be rolled laterally into place later, one single-track span at a time.

Reinforced Box-Type Abutments

The abutments at both crossings are of the open-box type, of reinforced concrete, with solid back walls, sectional front walls at the street curb lines, and open interiors, 7 ft. 0 in. wide and 10 ft. 4 in. high, which are

employed for sidewalk areas. At the ends of the abutments, the masonry is carried up above the track level to form prominent pylons, which give mass to the ends of the bridge, and, with the curved wing walls, a pleasing appearance which could not have been gained by abutments cut off at or near the bridge seat level and by the ordinary flared wing walls with continuous straight lines. Adding further to the appearance of the pyloned ends of the abutments and the curved wing walls at the Fifth Avenue crossing, both the abutments and wing walls were given a modernistic treatment with prominent vertical lines, not unlike the effect produced in "skyscraper" construction. Here also, and continuously through the subway, all exposed concrete was given a smooth rubbed surface. The only difference between the abutments and wing walls at Fifth and King avenues, is that at the latter, the wing walls are laid out as smooth curves, without as prominent vertical lines.

The two-track bridge structure at Olentangy boulevard, which was occasioned by the construction of a new link in the boulevard, differs from those at Fifth and King avenues in that, with a continuous pier at the center of the crossings, it provides two clear roadway and sidewalk openings of 34 ft. 6 in. each. Furthermore, this structure has a concrete slab deck supported on longitudinal, wide-flange I-beams, obscured as a whole from both roadway approaches by deep steel fascia girders, and has mass-type concrete abutments. Here, however, all exposed masonry, including the surfaces of the abutments and center pier within the subway area, is faced with cut limestone in broken ashler arrangement.

The construction of this crossing involved a track rise extending over a distance of approximately 2,332 ft., reaching a maximum of 4 ft. 6 in., at a point about 200 ft. west of the crossing, and with this work, the raising of a two-span, two-track truss bridge crossing of the road over the Olentangy river, approximately 200 ft. east of the boulevard. The amount of the bridge raise was a maximum of 2 ft. 11½ in. The new boulevard crossing also required a roadway cut approximately 13 ft. deep at the bridge, and, because of lack of sewers in this area and the fact that the low point of the under-

pass is below high-water stage in the Olentangy river, the installation of a complete pump-operated drainage system.

The pumping system, located immediately adjacent to the underpass, involves an earth-walled reservoir, a small brick pump house mounted on top of a concrete walled cistern, about 15 ft. deep, and two float-controlled, vertical centrifugal pumps, each with a capacity of 1,600 gal. per min. The pumps, located at the bottom of the cistern and equipped with six-inch suction and discharge lines, are direct-connected to and are operated by vertical, squirrel-cage induction motors, mounted at the floor level of the pump house, beyond the reach of high water.

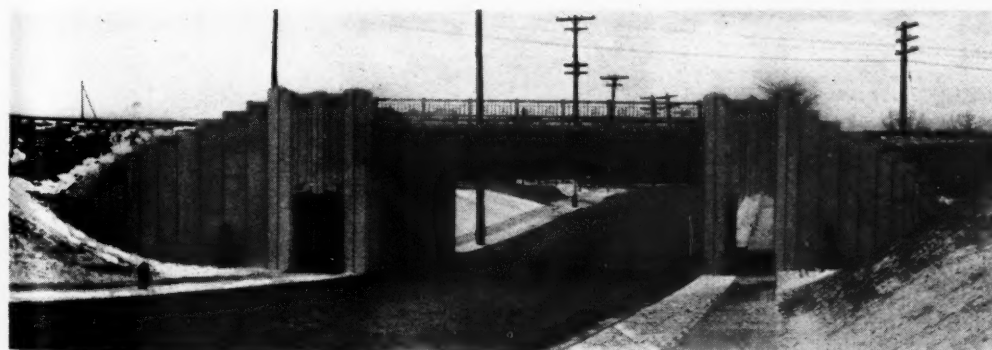
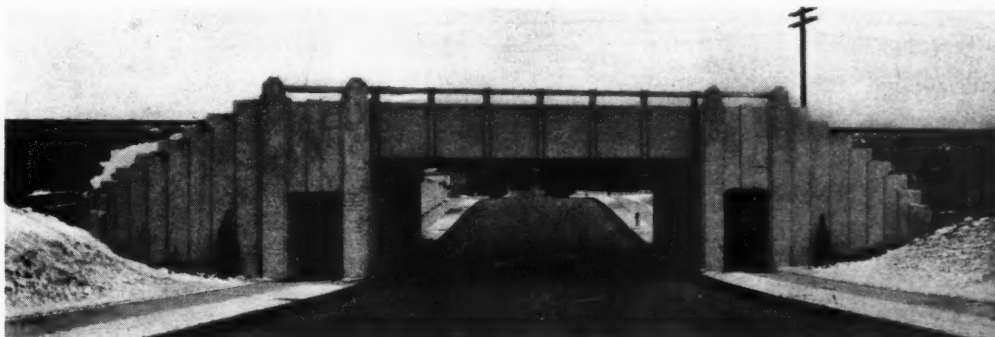
Excavation Done Under Traffic

All three of the new bridge structures were built in much the same manner, being constructed alongside in single-track sections and rolled into place. This was done without interfering with traffic, except when one track at a time was taken out of service for a short period during the rolling-in operations. The first step in the work at each crossing was to carry out the full track raise involved. This was all done under traffic, employing coarse sand in successive lifts of approximately six inches, the sand being distributed from Rodger ballast cars, following which the track was jacked up through it and shovel-tamped to a running surface.

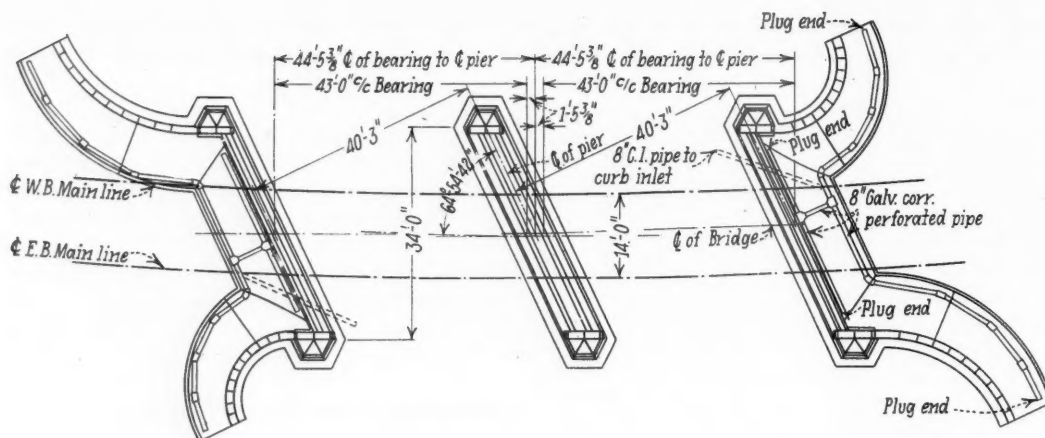
When at final grade through the areas of the new underpasses, temporary pile bents were driven beneath each track and, by means of either timber or steel I-beam stringers, were made to carry the track loads during the subsequent excavation work. All excavation was done with power shovels, even within the pile falsework areas, except for a small amount of hand shovel work directly about the individual piles.

When excavation had been completed within the abutment areas, the necessary formwork was set up and the abutments were poured. At the same time the center pier at Olentangy boulevard was constructed without interfering in any way with traffic. All of the structures were given bearing on a firm gravel foundation im-

Looking East Toward the Simple, Yet Attractive Structure Over King Avenue



Vertical Architectural Lines and Curved Wing Walls Are Features of This Crossing of Fifth Avenue



General Layout Plan of the Grade Separation Structure at Olentangy Boulevard

mediately below the pavement level, which required only minimum spread of the footings. All concrete employed was manufactured in accordance with the water-cement ratio, as specified by the Ohio State Highway Department; that for the Fifth and King Avenue structures being prepared at the site, while that for the abutments and center pier at Olentangy boulevard was mixed during transit from a central batching plant.

As already stated, the bridge decks at all three crossings were erected in single-track sections directly alongside their final positions in the structures and were rolled into place, one section at a time, as the temporary pile falsework was dismantled. At King avenue, for example, where the normal four tracks, including an industrial lead, had been reduced to three tracks temporarily to minimize falsework by cutting the lead into the adjacent main track immediately each side of the crossing, two of the single-track girder spans were erected on falsework on each side of the roadway. Here, each single-track span was completed, even to dressing with stone ballast and ties, ready to permit the laying of the track in minimum time when it was seated in final position.

To permit the rolling operations the new spans were constructed at elevations a little above their final seat elevations, and the construction falsework was extended to and through the subway area on each side in a tower-bent type rollway, capped with a steel I-beam employed as a roller bed. Immediately outside of these rollways, between them and the abutments, jacking bents were provided whereby the spans, when in final alignment, could be lifted from the rollways, and then lowered on to their final abutment seats after the I-beam roller beds had been removed.

All of the spans were constructed on wedges, keeping them clear of their roller beds until the times set to move them. Then, by driving out the wedges, the spans were lowered on to a series of roller nests, which were continued along the roller beds at each end to the limits of the move to be made. Where four tracks were involved, the inner span on one side was placed first, following immediately by the placing of the adjacent outside span. Thus, when the spans on one side were ready to be rolled in, the two operating tracks involved were taken out of service and, over the width of the excavated roadway, were completely removed. Then, working from these tracks on each side of the gap, locomotive cranes dismantled the temporary pile falsework which had supported the tracks, clearing the way for the new spans.

As soon as this work was done, the first of the spans was rolled laterally into place, power being furnished by a hoisting engine located in the roadway cut, with suitable cable hitches to the span. When this span was ac-

curately spotted in position, it was jacked down on its abutment seat, and, while track forces proceeded to extend the track across it, the outside span on the same side was rolled into its final position and seated. With both spans on this side in service, similar operations were carried out on the opposite side of the right-of-way.

Through the procedure adopted in erecting the bridges, interference with train movements was cut to a minimum, and, in fact, only one train was actually stopped by the operations. The importance of not interfering with train movements in this territory is appreciated when it is realized that the Toledo subdivision handles from 35 to 45 trains daily, destined to and from lake ports, many consisting of a hundred cars or more. In a further effort to minimize interference with train movements, even to the extent involved in routing trains over immediately adjacent tracks, most of the work involving exclusive use of certain tracks, such as the span-rolling operations, was carried out on Tuesdays, the day of each week when traffic is lightest in this territory. Even then, the longest period that any of the main tracks were taken out of service was only approximately two hours.

* * *



Interior of Canadian National Dining Car Built By the Canadian Car and Foundry Company—Cor-Ten and Man-Ten Steels Contributed to Substantial Reductions in the Weight of These Cars

N. I. T. L. Vetoes Water Carrier Regulation, 68 to 65

Only about 15 per cent of League's total membership participated in poll, however—Favors forwarders, with regulation

BY a vote of 68 to 65, the National Industrial Traffic League, at its thirty-second annual meeting at Chicago on November 21 and 22, reaffirmed its position of opposing any regulation of water transportation. The discussion preceding the vote was more heated than that of any previous meeting and revealed enlargement of the ranks of those favoring a change in the league's policy of opposition. While the meeting, over which President Charles W. Braden, general traffic manager of the National Distillers Products Corporation, presided, was attended by 300 of the League's approximately 900 members, only a small number attended the session at which the waterway report was considered.

Officers elected for the ensuing year are, President, J. E. Bryan, general traffic manager of the Wisconsin Paper & Pulp Manufacturers Traffic Association, Chicago; vice-president, R. R. Luddecke, general traffic manager of Standard Brands, Inc., New York; and treasurer, Roy W. Campbell, manager of the traffic department of Butler Paper Corporations, Chicago.

Argument over the League's water carrier policy was precipitated when a special committee, reporting on the Wheeler-Truman and Lea bills, which would extend Interstate Commerce Commission jurisdiction over water carriers, recommended that the League oppose the proposed codification of the Transportation Act as proposed in pending bill S. 2009 and prepare and present to congressional conferees a statement setting forth the League's position. The first evidence of mixed opinion occurred when the demand was made that the League be consistent in its action by either insisting upon the same regulation for water carriers as is applied to railroads and highway carriers or the lifting of all regulation. Further discussion was halted by a motion to table the proposal until the Inland Waterways Committee had presented its report which placed the league in opposition to H. R. 6939, which would provide for tolls for the use of river locks, and H. R. 4307, which would establish a joint board to bring about co-ordination of rail and water transportation.

The major reason advanced by those opposed to the regulation of water carriers was that water freight rates would probably be increased. Those favoring a change in the League's position contended that by opposing water regulation the League places itself in a position whereby it cannot express itself in the formation of laws.

Favors Forwarder—With Regulation

Another important action taken at the meeting concerned freight forwarding service. The views of the League, as presented by a special committee on S. Res. 146 and adopted at the meeting, set forth: (a) That forwarders have a definite place in the present transportation set-up and that shippers, as represented by the League, are unwilling to forego the benefits of the services offered by forwarders pending experiments with other systems or methods of handling merchandise or

l. c. l. shipments; (b) That the League believes material savings to carriers in the cost of transportation and improvements in l. c. l. service can be effected through pooling or other arrangements worked out voluntarily by the carriers but is opposed to compulsory pooling by either congressional or Commission action and that the League questions the advisability of any national pooling system from which all competition between rail carriers would be eliminated; (c) That the League reiterate its previously announced position that forwarders should be regulated.

Prior to the meeting this committee sent questionnaires to members to determine their views on merchandise service. "As might have been expected," the report stated, "the responses to the questionnaire disclose rather wide differences of opinion with regard to forwarders. The respondents may broadly be divided into three classes:

"(1) Those who feel that the forwarders are an absolutely essential part of our traffic handling system and who want nothing done that will interfere in any way with forwarder operations.

"(2) Those who feel that the forwarders occupy, and should be permitted to continue to occupy, an important place in our transportation set-up, but who also recognize that certain forwarders at least have indulged in, and still are indulging in practices which if indulged in by carriers subject to the Act would be unlawful and that the forwarders should be subjected to regulation by the Commission. This is the most numerous class.

"(3) Those who feel that the forwarder is an interloper that lives off the cream of the l. c. l. business and causes the railroads' l. c. l. service to be precariously maintained by the least nourishing traffic. This class, which would do away with the forwarders, represents a small minority compared with those who maintain that the forwarders should be permitted to continue to operate at least until some better system of handling l. c. l. traffic is evolved by the railroads.

"The elements most stressed by those who urged the need for continuance of forwarder service are dependability, flexibility and expeditious service. Compared to service, savings in freight charges, although considered important, seem to be treated as of secondary concern. Adequate facilities for tracing shipments and prompt disposition of claims are other reasons advanced why the forwarder service is attractive. That the forwarders are the only agencies effectively co-ordinating rail, truck and water service is frequently mentioned.

"Criticism advanced against the forwarders are that they generally accept only the higher rated merchandise where the greatest spread exists as between l. c. l. and carload rates, that is, only that traffic upon which they can make a profit; that their advertised rates are not adhered to, on the cuff rates being granted as expediency demands; and that only the large and more important traffic points are served.

"There seems to be much misconception as to the

scope of the forwarder service from the standpoint of the size and number of stations to which the service is offered. Examination of their tariffs discloses that service to thousands of small stations is offered either by rail or truck although to many of those, owing to the cost of securing the service, no saving in freight charges below the rail l. c. l. rates is offered.

"In answer to the questions as to whether l. c. l. service on the railroads is satisfactory, the answers range from very poor to excellent. The majority, however, seem to grade this service as good to larger points on main lines, fair to intermediate points on main lines (except short haul points) and very satisfactory to branch line points. To the short haul points comparison is frequently made with the service afforded by motor carriers and many express the conviction that the rail carriers cannot generally hope to furnish l. c. l. rail service that will approach in attractiveness that afforded by the highway carriers.

"Much criticism is found in the answers of the failure on the part of the railroads to make greater progress in co-ordinating rail and truck service. In this latter connection your committee feels that in all fairness sight should not be lost of the fact that rail carriers labor under regulatory restrictions in the use of trucks not placed upon forwarders. In the making of joint rates with highway common carriers, however, the forwarders will be under restrictions not placed on rail carriers if recent decisions of the Commission are adhered to and recognition of the forwarders as common carriers with appropriate regulation is not forthcoming.

"Those who would eliminate the forwarder feel that it is highly unfair to permit the forwarder to skim off the more lucrative tonnage and expect the railroads to furnish good service for what is left.

"On the question of the desirability of pooling l. c. l. traffic, widely divergent views are also expressed. Those who think that the forwarders should be eliminated generally believe that material savings to the rail carriers can be affected through pooling and that by giving back to the rail carriers all the l. c. l. traffic better and speedier service will result for all classes of l. c. l. traffic.

"Many of those who want to see the forwarder service maintained argue that the past attitude of the rail carriers toward l. c. l. traffic and their present attitude, with perhaps certain exceptions, gives little ground for hope that, generally speaking, material savings will be afforded or better service result from either nationwide or regional pooling. They argue that when competition is lessened, service suffers.

"But also among the class that want to see the forwarders continue, for the present at least, are those who feel that pooling affords a medium through which great savings to the railroads could be effected in the cost of handling l. c. l. traffic if approached by the rail carriers with a wholehearted desire to achieve results. Those who take this view would like to see the railroads handle all the l. c. l. business but are unwilling to give up the benefits afforded by the forwarder service until the roads demonstrate they can and will offer service at least equal to that extended by forwarders and with similar or greater savings in freight charges to the shipper.

"They and others feel that any benefits to be derived from pooling must come through voluntary action of the carriers and that any attempt to force pooling either through congressional decree or through Commission action is foredoomed to failure. Those who entertain this view apparently feel that efficiency comes only when the heart is with the project and that it is axiomatic that efficiency cannot be legislated into any organization.

"Many of the replies contain denunciations of what are

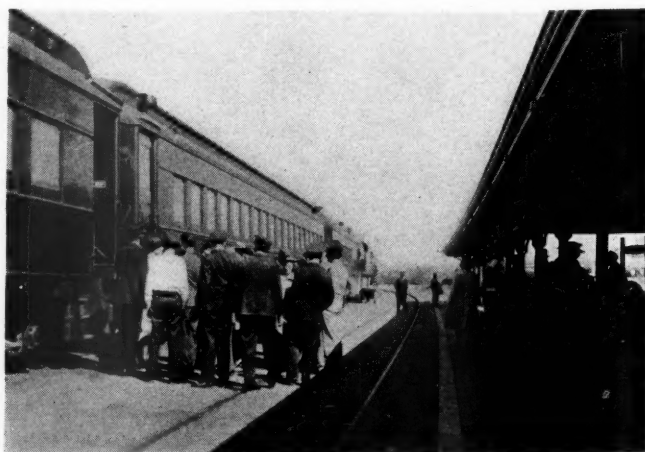
denominated archaic classification ratings and rules, and failure of the railroads to adjust class rates to meet the competitive situation created both by the trucks and forwarder service. Many suggestions are offered as to what should be done by the rail carriers to recapture lost tonnage."

While the docket for the meeting embraced 39 subjects, most of the reports were informative or reports of progress. However, the League did take action on several important subjects. It passed a resolution favoring the establishment of the American Institute of Traffic Management as proposed by the Associated Traffic Clubs of America and established a committee to work with that body. It authorized its Highway Transportation Committee to appear at truck classification hearings and advocate classification ratings based primarily upon cost of economical and efficient truck service. It went on record as opposed to the application of the Shreveport principle to motor carriers. It expressed disapproval of the Hastings plan for postalized passenger fares and authorized its Passenger Traffic Committee, if there should prove to be a disposition on the part of Congress to ignore the recommendations of the Commission and to bring the plan up for a vote on its merits, to file an appearance at any Congressional Committee hearing and record the League's opposition. It went on record as not favoring less than 30 days in the publication or the posting of tariffs prior to their effective date.

The League voted to favor the establishment of certain quantity rates. It opposes, at this time, an effort to limit the number of classes or ratings in the class rate structure. It favored the establishment of lower station-to-station rates on l. c. l. traffic than the rates published to include pick-up and delivery service. It approved the principle that where rates are competitive as between long distance and shorter distance shippers, any revision of the shorter distance rates, either l. c. l. or carload, be compensated for by a relative revision in the longer distance shippers rates. It decided to submit a proposal to the carriers seeking a liberalization of dunnage allowances and rules.

The Classification Committee suggested that all bracing and blocking used in carload shipments in box cars be carried free. When articles are transported in box cars and require temporary blocking, racks, standards and strips, it contended that the dunnage so used should be transported free when the actual weight of the loading exceeds the applicable carload minimum weight by 25 per cent and the dunnage does not exceed one per cent of the weight of the loading.

* * *



Activity at Chesapeake & Ohio's Station at Williamsburg, Va., as the "Sportsman" Arrives, Bound for Old Point Comfort

New Books . . .

A History of the Growth of the Steam Engine. Centennial edition. By Robert H. Thurston. Cornell University Press, Ithaca, N. Y. Price \$3.

Among the many Thurston publications exhibited at Cornell University on October 25 in celebration of the one-hundredth anniversary of the author's birth was the centennial edition of "A History of the Growth of the Steam Engine" published especially for the occasion by the Cornell University Press. The appearance of this book in 1878 met the need for such a work in so satisfactory a manner that the book passed through six editions, an additional chapter being added to the last published in 1907. A supplementary chapter added to the centennial edition traces some of the more important developments in steam power engineering since the close of the nineteenth century. It was prepared by William N. Barnard, M. E., director of the Sibley School of Mechanical Engineering, Cornell University.

Notes on Interstate Commerce Law Practice and Procedure, by O. L. Mohundro. 200 mimeographed pages. 9¾ in. by 8½ in. Bound in paper. Published by Guthrie Lithograph Company, Washington, D. C.

The author, a distinguished member of the staff of the Interstate Commerce Commission, has here compiled a list of 1335 separate questions for use by students in his course in Interstate Commerce Law, Pleading, Practice and Procedure at the National University School of Law. The questions cover the background of the Act, its relation to the Constitution and common law, definitions, the history of its administration, regulation generally and the various amendatory acts.

The chief subject treated, however, is the Motor Carrier Act, to which the greater number of questions refer specifically. Under each question is given an authoritative source for its answer, the reference usually being to the relevant section of the Interstate Commerce Act itself, Rules of Practice current for the I. C. C. and other regulatory bodies or to texts published by the author noted hereinafter. The last 50 pages of the book contain citations of leading court cases (i. e., those most frequently cited) which portray the development of regulation as reflected in judicial opinions. These are listed in volume order without regard to subject matter but are headed by a statement of the subject for easy identification.

Inasmuch as the majority of Mr. Mohundro's students are practitioners, his notes are exceedingly detailed in order that they might have in hand a body of material not covered in class discussion. Furthermore, far greater weight is given to the practical matters of pleading, procedure, preparation of forms, etc., than is usually afforded in textbooks on the subject. Finally, the emphasis on the Motor Carrier Act and the ability of the author, by reason of his place in the Commission, to pass on to the reader the rapid and multitudinous changes in administration of this new field of regulation with which he is familiar, gives this volume a unique virtue.

Since the notes are based upon two previous texts published privately by Mr. Mohundro, it would not be amiss to make known their scope. "His Notes on the Motor Carrier Act," published shortly after it went into effect in 1935, is a 714-page bound volume comprising principally the following: (1) a reproduction of the text of the Act (copies of the statute were not readily available at the time); (2) a 300-page discussion of the antecedents of federal motor carrier regulation, including picture reproductions of pertinent chapters of I. C. C. annual reports, complete reprints of Commission reports in two national investigations of competitive conditions, and pages from the Federal Co-ordinator's reports; (3) an analysis of the Act by sections and paragraphs annotated with summaries of court and state commission opinions; (4) a discussion on procedure based on issues of the Commission, press notices, orders, speeches, etc., designed to reflect policy development right up to the completion of the manuscript; (5) precedents and examples of statutory

construction of the Act and (6) leading court decisions relating to the Act and procedure thereunder.

Mr. Mohundro's "Notes on Pleading, Practice and Procedure before Federal Regulatory Commission," published in 1938, contains 692 pages of text and 208 pages comprising a complete set of forms stipulated by the provisions of Parts 1 and 2 of the Act. The text pages are designed to describe in order the successive steps in procedure before regulatory agencies; (1) before hearing (2) hearings; and (3) after hearing. A 200-page section following deals exclusively with motor carrier cases, inasmuch as Part 2, being broader in scope than any previous statute of its kind, has brought entirely new problems of administrations. A section on judicial review, and discussions of practitioners' ethics and the movement for uniformity in commission practice close the text pages.

It would scarcely be too much to say of these works that they constitute an ordered compilation of just about all a man needs to know to be a practitioner before the I. C. C. (particularly if his main interest is in motor carrier questions; if his concern were primarily with railroads, the student would probably need to supplement his mastery of these texts with further study of railroad cases).

We are informed that a limited number of copies of these two volumes are available at \$3.50 and \$5 per copy respectively, and may be obtained from the publisher of the "Notes" cited above, at 1150 First Street, N. W., Washington, D. C.

British Railways at War

(Continued from page 846)

the tender to prevent any glow escaping whenever the firebox door is opened, and color-light signals are fitted with long hoods to render their lights invisible from the air.

A depressing feature of travel under present conditions is the almost complete absence of the beautiful pictorial posters which were such a feature of British railway advertising. For the first six or seven weeks of the war, railway advertising in the commonly accepted sense of the term was suspended. Poster boards either became bare or displayed formal notices in unattractive type making official announcements which for the most part referred to the withdrawal of facilities or to procedure in the event of air raids. An equally depressing feature, affecting those who travel after dark, is the absence of normal lighting, and so far as many stations are concerned, the almost complete absence of any lighting at all. Various experiments are being undertaken with a view to discovering means of providing direction and other notices which can be read at all times by the public, and at certain large stations special lighting circuits have been installed which enable a fairly high standard of illumination to be provided but capable of extinction directly an air raid warning is received.

The British railways are carrying out a heavy task under great difficulties and, as the restricted services are fast being improved, they are regaining the goodwill and praise they so justly earned at the time of the evacuation. It is unfortunate that circumstances have made it impossible for the railways to state publicly their case and their full achievements, but there is evidence that changes will soon be permitted. The drastic curtailment of many facilities, for reasons which were inevitably not always apparent to shippers and passengers, undoubtedly entailed a loss of goodwill, undoing many of the good results of the "Square Deal" campaign which had been carried out steadily almost to the outbreak of hostilities.

NEWS

Secrecy in Truck Contracts Fades

Come next April Fools' Day contract haulers' rates will be public property

Contracts showing actual as well as minimum charges and other information concerning the operations of contract truckers subject to the Motor Carrier Act will be open to public inspection after April 1, 1940, according to a six-to-five decision of the Interstate Commerce Commission which was made public late last week. The decision came after further consideration in Ex Parte No. MC-9, In the Matter of the Filing of Contracts by Contract Carriers by Motor Vehicle; and the report also embraces "certain preliminary questions" presented in Ex Parte No. MC-27, Central Territory Contract Carrier Rates.

The majority report evidently represents the views of Commissioners Aitchison, Mahaffie, Miller, Rogers and Patterson, while Commissioner Splawn's concurrence "in the results" produced its majority. Separate expressions came from Chairman Eastman, "dissenting," and Commissioners Lee, Caskie and Alldredge, all labeled "dissenting in part." Commissioner Porter concurred in Mr. Lee's expression.

The occasion for the commission's passing on the question arose as a result of a motion filed in Ex Parte MC-27 on behalf of Central territory common-carrier truckers who represented that full information as to the operations, contracts and rates of respondent contract truckers was indispensable to the determination of the issues involved in the proceeding. After informal conferences the information desired was tentatively agreed upon, but contract carriers asked for an opportunity to show by oral argument that no order should be issued requiring them to furnish the information tentatively agreed upon. The informal conferences also raised questions as to the commission's authority to require the disclosure of actual as well as minimum charges of contract truckers and as to the opening of the contracts to public inspection. These issues were heard on oral argument with Ex Parte No. MC-9 involved "only to the extent that we may find it appropriate and proper to open to public inspection contracts now on file or hereafter filed."

After reviewing the arguments of the various parties in interest and examining the pertinent provisions of the Motor Car-

September Net Income Was \$41,078,000

Class I railroads for September had a net income after fixed charges of \$41,078,000 as compared with \$6,395,000 in September, 1938, according to the Association of American Railroads. For this year's first nine months the net deficit after fixed charges was \$33,267,000 as compared with a red figure of \$175,570,000 for the same 1938 period.

rier Act, the majority report goes on to say: "Whether or not the contracts, once they are filed with us, automatically become public records, with the consequent right of inspection by interested persons, consideration of the public interest and of the policy of the Motor Carrier Act requires that they be made available for such inspection. A basic principle of carrier regulation is that full publicity of a carrier's charges is necessary and desirable in the public interest. There can be no effective regulation of common carriers until their charges are made public. Otherwise, it would be impossible to prevent rebating, discrimination or preferences among shippers who patronize them. Although there is no prohibition in the act against discrimination or preference by a contract carrier among his patrons, yet concealment of his actual charges not only discriminates against common carriers who are thus compelled to compete with published rates against contract carriers with concealed rates, but by this very fact, promotes rate wars, undercutting, and other unfair and destructive competitive practices among common carriers as well as between common and contract carriers. No shipper can justly complain if the charges which he pays for transportation are made public. The same thing is true of the other essential provisions of the contract between the patron and the contract carrier, such as the definition of rules, practices and regulations, and terms and conditions under which the transportation will be afforded."

The commission then went on to find, with respect to the Ex Parte No. MC-27 phase of the proceeding, that contract truckers respondents therein may properly and should be required to furnish information called for in a questionnaire which was made a part of the order. Exempt are the contract carriers of bullion, currency, jewels and other precious and very

(Continued on page 865)

Private Trucks Do No Damage?

Operators claim they are so safe that little or no I. C. C. rule is needed

Division 5 of the Interstate Commerce Commission on November 28 heard oral argument on Examiner R. W. Snow's proposed report in the Ex Parte No. MC-3 case involving hours of service and safety regulations for private trucks. As pointed out in the *Railway Age* of August 5, where the proposed report was reviewed, the examiner has recommended that the hours of service and safety regulations promulgated for common and contract motor carriers should, with relatively minor exceptions, be made applicable also to private trucks operating in interstate commerce.

Some sixteen counsel representing various truck-operating interests participated in the November 28 argument on which Chairman Eastman sat with the three members of Division 5—Commissioners Lee, Rogers and Alldredge. Generally speaking, counsel for trucking associations opposed any regulation while those representing particular industries asked for partial exemptions in view of their "special situations." On the other hand, counsel for the American Transit Association supported the examiner's recommendations (with one exception) because his clients feel that unregulated truck operations are a menace to their buses and the passengers therein. Representatives of the Wages and Hours Division of the Department of Labor wanted the case remanded to the examiner for the taking of evidence on the impact on private carriers of the Fair Labor Standards Act, and a reconsideration in the light of such evidence of the question of the need for hours of service regulations. Although most of the exemptions recommended by the examiner would apply to farm trucks, a representative of the Department of Agriculture wanted such vehicles completely exempted; he thought local regulations would be adequate. Talk about exemptions for farmers had prompted Chairman Eastman to ask at another point in the proceeding if the farmers weren't "an exception to every rule."

M. B. Pierce, counsel for the Private Truck Owners Council, led off with an argument against any regulation, contending that the commission lacked power to pro-

(Continued on page 866)

10 Months N. O. I. Was \$456,617,496

2.07 per cent return compares
with 1.24 per cent in same
period of 1938

Class I railroads in the first ten months of 1939 had a net railway operating income of \$456,617,496 which was at the annual rate of return of 2.07 per cent on their property investment, according to the Bureau of Railway Economics of the Association of American Railroads. In the first ten months of 1938 their net railway operating income was \$274,039,613 or 1.24

Class I roads in the Eastern district for the first ten months had a net of \$255,013,357 or 2.47 per cent; for the same period in 1938, their net was \$142,781,071 or 1.38 per cent; and in 1930 it was \$388,453,595 or 3.83 per cent. Gross in the Eastern district for the first ten months totaled \$1,601,568,405 an increase of 16.6 per cent compared with 1938, but a decrease of 28.5 per cent compared with 1930. Operating expenses in the first ten months totaled \$1,142,688,575, an increase of 9.9 per cent above the same period in 1938, but a decrease of 31 per cent under the first ten months of 1930.

Class I roads in the Eastern district for October had a net of \$53,291,909, compared with \$34,063,719 in October, 1938, and \$47,274,716 in October, 1930.

CLASS I RAILROADS—UNITED STATES

Month of October

	1939	1938	1930
Total operating revenues	\$419,717,399	\$353,384,223	\$477,966,434
Total operating expenses	271,538,049	242,354,484	322,443,081
Taxes	35,082,020	30,924,550	31,791,258
Net railway operating income	101,616,477	68,594,809	110,923,349
Operating ratio—per cent	64.70	68.58	67.46
Rate of return on property investment	2.94	1.98	3.35

Ten Months Ended October 31

	1939	1938	1930
Total operating revenues	\$3,281,797,254	\$2,926,919,242	\$4,512,318,485
Total operating expenses	2,413,032,871	2,257,671,095	3,340,656,001
Taxes	301,767,722	286,338,260	303,226,866
Net railway operating income	456,617,496	274,039,613	759,038,636
Operating ratio—per cent	73.53	77.13	74.03
Rate of return on property investment	2.07	1.24	3.43

per cent on their property investment, and in the first ten months of 1930 was \$759,038,636 or 3.43 per cent.

Class I roads in October, had a net of \$101,616,477 or 2.94 per cent, compared with \$68,594,809 or 1.98 per cent in October, 1938, and \$110,923,349 or 3.35 per cent in October, 1930.

Gross operating revenues for the first ten months totaled \$3,281,797,254 compared with \$2,926,919,242 for the same period in 1938, and \$4,512,318,485 for the same period in 1930, an increase of 12.1 per cent in 1939 above 1938, but 27.3 per cent below 1930. Operating expenses for the first ten months amounted to \$2,413,032,871, compared with \$2,257,671,095 for the same period in 1938, and \$3,340,656,001 for the same period in 1930. Operating expenses for the first ten months were 6.9 per cent above the same period in 1938, but 27.8 per cent below 1930.

Class I roads in the first ten months paid \$301,767,722 in taxes, compared with \$286,338,260 in the same period in 1938, and \$303,226,866 in the same period in 1930. For October alone, the tax bill amounted to \$35,082,020, an increase of \$4,157,470 or 13.4 per cent above October, 1938. Sixteen Class I roads failed to earn expenses and taxes in the first ten months of 1939, of which five were in the Eastern district, four in the Southern district, and seven in the Western district.

Gross for October amounted to \$419,717,399 compared with \$353,384,223 in October, 1938, and \$477,966,434 in October, 1930. Operating expenses in October totaled \$271,538,049 compared with \$242,354,484 in the same month of 1938, and \$322,443,081 in October, 1930.

Class I roads in the Southern district for the first ten months had a net of \$62,824,411 or 2.41 per cent; for the same period in 1938, their net amounted to \$46,145,361 or 1.78 per cent; and for the same period in 1930 was \$73,164,143 or 2.63 per cent. Gross in the Southern district for the first ten months amounted to \$421,078,296 an increase of 8.6 per cent compared with the same period in 1938, but a decrease of 22.8 per cent under the same period in 1930. Operating expenses in the first ten months totaled \$312,184,315, an increase of 5.2 per cent above the same period in 1938, but a decrease of 27.1 per cent under 1930.

Class I roads in the Southern district for October had a net of \$12,107,553, compared with \$9,338,003 in October, 1938, and \$10,146,795 in October, 1930.

Class I roads in the Western district for the first ten months had a net of \$138,779,728 or 1.52 per cent; for the same period in 1938 those same roads had a net of \$85,113,181 or 0.93 per cent; and for the same period in 1930 they had a net of \$297,420,898 or 3.21 per cent on investment. Gross in the Western district for the first ten months amounted to \$1,259,150,553, an increase of eight per cent above the same period in 1938, but a decrease of 27.1 per cent below the same period in 1930. Operating expenses in the first ten months of 1939 totaled \$958,159,981, an increase of four per cent compared with the same period in 1938, but a decrease of 23.8 per cent under the same period in 1930.

For the month of October alone the Class I roads in the Western district had a net of \$36,217,015 compared with \$25,193,087 in October 1938, and \$53,501,838 in October, 1930.

Private Truck Pow-wow at N. Y.

Harangued by Chet Gray, pressure group is out to eliminate alleged "barriers"

About 150 members attended the first annual meeting of the National Council of Private Motor Truck Owners at the Pennsylvania Hotel, New York, on November 27. Organized a little more than a year ago with headquarters at Washington, D. C., the council holds itself out to represent the interests of the 85 per cent of total truck owners who do not operate for hire. The council passed a resolution condemning so-called state "barriers" to interstate highway transportation, citing, among others, port-of-entry laws and vehicle weight and size restrictions as the particular objects of its attack. Another resolution opposing federal regulation of private truckers failed to pass the meeting for lack of support, although previous expressions of the Council have indicated support for such a stand.

The membership approved a number of amendments to the by-laws, comprising principally an expansion of the "purposes" of the organization and substitution of the broader term "vehicles" for the term "trucks". The purposes of the Council previously stated that it "will be devoted to promoting the safe and economic use of highway transportation by agriculture and industry in private motor trucks." As amended this section of the by-laws now reads:

"The purposes for which this corporation is formed are: To foster and promote the safe and economic use of highway transportation by agriculture and industry in private motor trucks and to cooperate with existing organizations and groups having similar objectives; to serve as a clearing house of information relative to the economic and safe operation of privately owned motor trucks and to collect and disseminate data pertinent thereto; to promote uniform state laws in the public interest and in the interest of safe and economic use of highways by privately owned motor trucks and to work for reciprocity between the states in the matter of motor truck license fees; to prepare publicity matter, including pamphlets, on the economic aspects of the use of motor trucks for agriculture and industry; and to present the views of private motor truck owners to state and federal law making bodies, fact finding agencies and commissions; to cooperate with governmental agencies for the above purposes; and to promote the organization of state affiliates in those states where private truck owners are not organized."

Those eligible for membership are described as owners who "use their motor

No. of Trucks	Dues
Up to 10,000	\$100
Up to 20,000	200
Up to 30,000	300
Up to 40,000	400
Over 40,000	500

vehicles, incidental to their business, upon the highways, roadways, streets or other thoroughfares of the United States." An-

nual dues are established for trade associations based on the number of trucks owned by their members as shown in the table.

Individual owners are assessed \$1 per truck subject to minimum dues of \$25 and \$500 maximum.

Addressing the luncheon of the Council, Chester H. Gray, director, National Highway Users' Conference, stated his belief that the Council was established not only to foster the interests of private trucking but as well "to guard against restrictive laws and rules having to do with private transport on the roads." The principal target of his attack in this category was a "commodities clause" for highway operators which was slated for inclusion in the Senate's Transportation Bill, which he characterized as "a misguided effort to aid the railroads" and a "denial of all transportation rights and privileges to those who throughout the ages have delivered their products to their customers as a regular part of daily business routine." The "rights" which such a commodities clause would threaten the speaker described as "the right of the citizen having the power (*sic*) to choose which method of transportation he desires to use; what price he desires to pay as his contribution to the transport bill of the nation and what efficiency he has a right to expect for his outlay of cash for transportation purposes."

In discussing the aims of the Council, he described a major policy as a desire "to secure at the earliest practicable moment as much uniformity in sizes and weights of motor vehicles as can be hoped for and encourage the states to work reciprocally one with another on these matters rather than antagonistically." In this connection, he said that it was logical to expect the federal government to establish a formula of sizes and weights for vehicles in interstate commerce which might also be adopted by the states for application to intra-state jurisdiction.

He went on to say that the Council "has dedicated itself to a minimum rather than a maximum of regulations; to that extent of motor imposts paid by private truckers which is **nicely related to the income ability of the private truckers**; to the dedication of every last dollar secured from motor imposts to highway purposes; to the elimination of ports of entry and the establishment of reciprocity among the states; and to the attainment as soon as possible, of interstate similarity in regard to sizes and weights of motor vehicles."

Pennsylvania's Excess-Crew Law Voided by Court

The state of Pennsylvania's two-year-old "Full" Crew Act which would have cost the railroads of the state more than \$8,000,000 in extra operating costs each year was killed by a unanimous decision of the State Supreme Court handed down on November 27. The court held the act illegal principally on the grounds that it violated the property rights provisions of the state Constitution. Inasmuch as such violation was clearly shown, the court said, it was not necessary to consider whether the property or commerce clauses of the federal

Roads Get Till Jan. 20 to Answer Anti-Trust Suit

As a result of an agreement by counsel on both sides the time-limit for filing answers in the government's anti-trust suit against the Association of American Railroads, its officers and directors and 236 member roads has been set for January 20, while any other motions or pleas other than answers, must be filed by December 31. The complaint, details of which were given in the *Railway Age* for October 28, page 670, was filed by the Department of Justice, charging that the railroads had refused to cooperate with motor carriers in the establishment of joint through rates and routes.

Constitution were likewise violated by the act. It is understood that this ruling precludes the possibility of an appeal by the state to the United States Supreme Court.

Litigation over the full-crew measure has continued for over two years since the act was signed by Governor Earle on June 1, 1937, and has built up a record store of testimony introduced by counsel for the state and the railroad brotherhoods on the one hand and counsel for the Pennsylvania Railroad, which instituted the original test suit attacking the act.

The act was never effective since the P. R. R. obtained a temporary restraining injunction on June 2 from the County Court of Common Pleas at Harrisburg. This was continued after 10 other major carriers joined in filing briefs. Then, in February, 1938, the state attorney-general and Public Utility Commission appealed from the injunction to the state Supreme Court, naming the P. R. R. as appellee. The high court, in June of that year, upheld the lower court's injunction and sent the case back for further hearings on the grounds of constitutionality. Its remarks on the full crew measure in that decision were summarized in the *Railway Age* for June 4, 1938, Page 954. The county court, after extended hearings, held the act to be in violation of the "process" clause of the federal Constitution, an improper exercise of the police power and an interference with interstate commerce. This ruling was appealed by the state to the state Supreme Court which has upheld the decision of the lower court, although it has modified somewhat the findings upon which the decision is based.

The law would have required such use of extra man-power on the railroads as an additional brakeman on passenger trains of over 10 cars and freight trains of over 50 cars, two men at the head-end of electrically-propelled trains, including multiple-unit suburban cars, baggagemen on locked cars and additional employees on passenger trains carrying "head-end" business exclusively. It was estimated by the Pennsylvania that its enforcement would increase its own operating costs by more than \$4,500,000 per annum, while railroad labor union leaders themselves conceded that it would raise wage payments about \$3,000,-

000 annually. While, strictly speaking, the case concerned the Pennsylvania alone as appellee, it was declared during hearings that the law would cost all the railroads in the state at least \$8,400,000 per annum.

The state and the brotherhoods based their argument on the safety features of the full-crew law, while John Dickinson, general solicitor, Pennsylvania, who directed the railroad presentation, contended that the law had no bearing on safety considerations but meant only the imposition of additional costs on the railroads in violation of property rights and in interference of interstate commerce.

In its decision, the court declared: "What impressed us most was the highly speculative possibility of the danger of accidents alleged to exist. The resultant effectiveness of the act under these circumstances could only be out of all reasonable proportion to the cost involved, which was found to be more than \$4,500,000, or, as conceded by appellants, at least, in a request for a finding of fact, \$2,900,000."

Traffic Clubs' Spring Meeting to Be Held at Tulsa

The Associated Traffic Clubs of America will hold its spring meeting at Tulsa, Okla., on May 13-15, 1940. The annual meeting will be held at Philadelphia, Pa., on October 21-23.

St. Louis Southwestern Seeks to Spend Two Million

The St. Louis Southwestern has asked the federal district court for permission to spend \$2,087,754 for additions and betterments in 1940. The court set December 15 for a hearing. Of the total, \$343,089 is for rails previously authorized, while the balance is for repairs and improvements throughout the system.

Fares for C. C. C. Boys

The Interstate Commerce Commission has further postponed from December 1 until February 1, 1940, the effective date of its order requiring the cancelation of suspended schedules proposing reduced passenger fares for Civilian Conservation Corps enrollees on furlough or leave at their own expense. As noted in the *Railway Age* of October 21, the commission recently reopened this case.

Club Meetings

The Toronto Railway Club will hold its annual dinner on December 2 at the Royal York hotel, Toronto, Ont.

The Northwest Car Men's Association will hold its next meeting on December 4 at the New Midway club, St. Paul, Minn., F. C. Hasse, general manager, Oxweld Railroad Service Company, Chicago, Ill., will present a paper and pictures on welding practices.

B. & M. Freight Officer to Study Hawaiian Railroad

J. R. MacAnanny, assistant freight traffic manager, Boston & Maine and Maine Central, departed from Boston, Mass., November 27 en route to Honolulu, Hawaii, where he will devote two months to the direction of a traffic research project for

the Oahu Railway & Land Co. Mr. MacAnanny has conducted extensive studies on traffic problems, particularly with respect to motor truck competition, for the northern New England roads.

New Haven Introduces Women's Coach on Low Cost Excursions

The New York, New Haven & Hartford introduced a coach for the exclusive use of women on its special, low cost, weekend excursion trains between Boston, Mass., Providence, R. I., New Haven, Conn., and New York, effective November 25. Planned as a special convenience for unescorted women travelers and women accompanied by small children, this service will be a regular feature of the excursion trains which operate each Saturday and Sunday.

Would Let Cotton Belt Affiliate Buy Truck Route

Examiner Robert R. Hendon of the Bureau of Motor Carriers' Section of Finance has recommended in a proposed report that the Interstate Commerce Commission conditionally authorize the Southwestern Transportation Company, affiliate of the St. Louis Southwestern, to purchase the interstate operating rights of the Inter-City Trucking Company, Memphis, Tenn., on a 61-mile route between Jonesboro, Ark., and Blytheville, via Leachville.

N. Y. Committee to Meet with Steamship Men

T. J. Clarken, manager New York terminals Lehigh Valley, and O. A. Frauson, superintendent lighterage, Erie, have been appointed by railroads in New York harbor to work with a similar committee of steamship representatives to be appointed by E. J. Karr, chairman, traffic advisory committee, Maritime Exchange, to facilitate the discharge of lighters in the port and speed up rail-ship loading. Mr. Clarken has been chairman of the regular railroad New York Harbor Lighterage committee for the last 15 years.

Acme Order Again Postponed

The Interstate Commerce Commission has further postponed from November 25 to January 10, 1940, the effective date of its order in that phase of the Acme Fast Freight status case which ordered Acme tariffs stricken from the commission's files. As noted in the *Railway Age* of October 28, Acme and numerous motor carriers are in court seeking an annulment of this order and another denying Acme's application for a certificate as a common carrier by motor vehicle with a holding that forwarders are left unregulated under the Motor Carrier Act.

Central Western Board Meeting

Progressive cooperation will be the keynote of the fortieth regular meeting of the Central Western Shippers Advisory Board at Boise, Ida., on December 7. The program, designed in accordance with this theme, will include a number of addresses which will be climaxed at a luncheon, sponsored by the Boise Chamber of Commerce, by speeches made by W. M. Jeffers, president of the Union Pacific and

Lewis Yoder of the Lewis Yoder Company, Mampa, Ida. Mr. Jeffers' subject will be The Relation of Railroads to Business Generally, while Mr. Yoder's will be Marketing as it Affects Shippers and Carriers. At the morning session Progressive Cooperation between Shipper and Carrier will be discussed by J. W. Cornell, chairman of the Idaho Public Utilities Commission, while Providing Equipment for Perishable Loading will be the subject of a talk to be made by R. B. Hoffman, superintendent of transportation of the Pacific Fruit Express Company.

Call for Report on Cars Containing Company Material

W. C. Kendall, chairman of the Car Service Division, has addressed a circular to all railroads requesting a report for the week ended November 18 as to the revenue freight cars containing company material. The data, which Mr. Kendall says is wanted "for special purpose," will be the same as that formerly submitted four times monthly on Form CS-13, which report was discontinued in 1928 and reinstated for several months in 1936 and 1937. If the records have not been kept up to date Mr. Kendall asks for the best possible estimate.

N. Y. Considers \$42,000,000 Crossing Elimination Program for 1940

The New York Public Service Commission has announced a list of 37 grade crossing elimination projects which are to be considered during the year 1940. Total estimated cost of the work on the program is set at \$42,380,200. The largest projects under the program include \$12,500,000 on work in Niagara Falls; \$7,000,000 in Saratoga Springs, and \$5,000,000 in Corning.

The 1939 elimination program of the Commission included 47 projects for consideration which would cost about \$43,000,000. Of this number 14 projects estimated to cost \$30,000,000 were carried over from the 1938 program. During 1939 the Commission disposed of ten projects involving the elimination of crossings estimated to cost about \$1,000,000. This leaves 37 projects involving elimination work estimated at more than \$42,000,000 upon which determinations have not yet been made.

Pension Payments in October

Benefit payments under the Railroad Retirement Act in October amounted to \$9,502,000, according to the November 25 issue of the Railroad Retirement Board's "Weekly Review." This is the total amount certified to the Secretary of the Treasury for payment on employee annuities, pensions, and survivor and death benefit annuities; it includes retroactive payments and adjustments for cancellations. From the beginning of the retirement system until the end of October, total benefit certifications amounted to \$231,441,000.

The October payments were the highest in any month to date and were \$300,000 higher than payments certified during September. A large part of the increase is due to a rise in the number of new certifications and of recertifications with in-

creases in amount of annuity, both of which carry retroactive payments to the month that the annuity began to accrue. There were also a larger number of lump-sum death benefit payments in October than in the preceding months.

Proposed Waterway Gets Unfavorable Report

The Division Engineer at Cleveland, Ohio, has submitted to the Board of Engineers for Rivers and Harbors in the War Department an unfavorable report on the proposed improvement of the Great Lakes-Hudson River Waterway from Three Rivers Point to the Niagara River, upon the grounds that the annual costs of the improvement exceed the estimated benefits; that existing facilities amply care for the needs of present and immediately prospective commerce; and that the easterly portion of the Barge Canal on the through waterway between the Atlantic Ocean and the Great Lakes, via Oswego and the Welland River, is now being improved with funds furnished by the United States.

B. & M. Provides Study Tables for Commuting Students

The Boston & Maine's patron-suggestion plan (described in the issue of November 25) has already produced tangible results. As a consequence of a suggestion placed in the drop-box by two young women, students at the State Teachers College, Salem, Mass., the road has set up special study tables for students in the waiting room of its North Station at Boston. Officers of the road found on investigation that dozens of students customarily have to wait some time at North Station before boarding their trains. The installation of two tables and eight chairs reserved for the exclusive use of such students will provide the facilities for getting some of the scholastic chores done conveniently.

Motor "Proportionals" Suspended

The Interstate Commerce Commission has suspended from November 25 to February 20, 1940, motor carrier tariffs proposing to establish a "proportional commodity rate" on "all-freight" from Los Angeles, Calif., to Bakersfield, Fresno, Sacramento, San Francisco and Stockton, applicable on traffic originating at points in Iowa, Minnesota, Mississippi, Missouri and Tennessee (except Memphis) or states east thereof. The suspended schedules are somewhat like those involved in the I. & S. No. M-247 proceeding wherein enforcement of the commission's order has been enjoined by the court, as noted in the *Railway Age* of November 18, page 797.

Pere Marquette to Build \$2,000,000 Car Ferry

The Pere Marquette has awarded a contract for construction of a new steel car ferry, believed to be the largest and most powerful designed for operation on the Great Lakes, to the Manitowoc Shipbuilding Company. The contract calls for delivery by January, 1941, and a delivered price of approximately \$1,970,000.

When placed in service the new car ferry will increase to ten the number of

ships in the road's fleet. Two of the present ferries operate on the Detroit River, while the balance are assigned to the transportation of freight cars, highway vehicles and passengers across Lake Michigan between Ludington, Mich., and Milwaukee, Wisc., Manitowoc and Kewaunee.

Freight Car Loading

Loading of revenue freight for the week ended November 25, which included the Thanksgiving Day holiday in many states, totaled 676,516 cars, the Association of American Railroads announced on November 30. This was a decrease of 94,888 cars, or 12.3 per cent, below the previous week, but an increase of 114,858 cars, or 20.4 per cent, above the corresponding week in 1938 and an increase of 120,754 cars, or 21.7 per cent, above the comparable 1937 week.

Loadings of revenue freight for the previous week ended November 18 totaled 771,404 cars. This was a decrease of 14,557 cars or 1.9 per cent below the preceding week, an increase of 114,338 cars, or 17.4 per cent above the corresponding week in 1938, and an increase of 126,477 cars, or 19.6 per cent above the same week in 1937. The summary for the November 18 week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings			
For Week Ended Saturday, November 18			
Districts	1939	1938	1937
Eastern	160,864	138,628	140,408
Allegheny	167,011	120,511	118,469
Pocahontas	57,730	48,846	40,696
Southern	105,619	96,499	95,828
Northwestern ..	108,427	83,272	78,747
Central Western ..	119,613	116,553	114,599
Southwestern ..	52,140	52,757	56,180
Total Western Districts	280,180	252,582	249,526
Total All Roads	771,404	657,066	644,927
Commodities			
Grain and grain products	36,897	36,117	39,306
Live stock	15,904	18,057	16,656
Coal	151,046	133,188	128,562
Coke	12,087	7,085	6,553
Forest products ..	35,612	28,556	26,701
Ore	45,635	12,849	12,088
Merchandise l.c.l.	158,028	153,991	159,977
Miscellaneous ..	316,195	267,223	255,084

November 18 ..	771,404	657,066	644,927
November 11 ...	785,961	636,446	685,926
November 4	805,862	672,967	728,765
October 28	834,096	708,590	768,024
October 21	861,198	705,284	770,156

Cumulative Total,
46 Weeks ... 30,163,837 26,948,266 34,362,101

In Canada.—Carloadings for the week ended November 18 totaled 58,370, which was an increase of 3,636 over the preceding week and of 7,075 over the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Nov. 18, 1939	58,370	26,373
Nov. 11, 1939	54,734	25,987
Nov. 4, 1939	58,080	26,762
Nov. 19, 1938	51,295	23,026

Cumulative Totals for Canada:		
Nov. 18, 1939	2,252,578	1,048,626
Nov. 19, 1938	2,181,645	945,654
Nov. 20, 1937	2,354,187	1,221,595

Development Association to Meet December 8-9

The American Railway Development Association will hold its thirty-first annual meeting at the Hotel Netherland Plaza, Cincinnati, Ohio, on December 8 and 9. The program provides for addresses on the following subjects: Food Distribution, by C. B. Denman, agricultural counsel of the National Associations of Food Chains; What Fertilizers Can Do to Help the General Agricultural Situation, by Myron S. Hazen, manager Service division, the American Agricultural Chemical Corporation; Transportation Legislation, by Dr. C. S. Duncan, economist for the Association of American Railroads; Problems of Managing Repossessed Farm Lands, and Programs for Their Return to Owner-Operator Status, by Frank W. Reinehl, chief of Collection and Farm Service section, Land Bank division, Farm Credit Administration; Industrial Uses for Farm Products, by L. S. Livingston, manager, Agricultural Extension division of E. I. duPont de Nemours & Company; New Ideas in Food Processing, by N. B. Barclay, western supervisor of the Frosted

Foods Sales Corporation; and Desirability of Co-operation between Industrial Real Estate Brokers and Railroad Industrial Development Representatives, by Louis B. Beardslee of Louis B. Beardslee & Company. The program also provides for sectional meetings on both mornings.

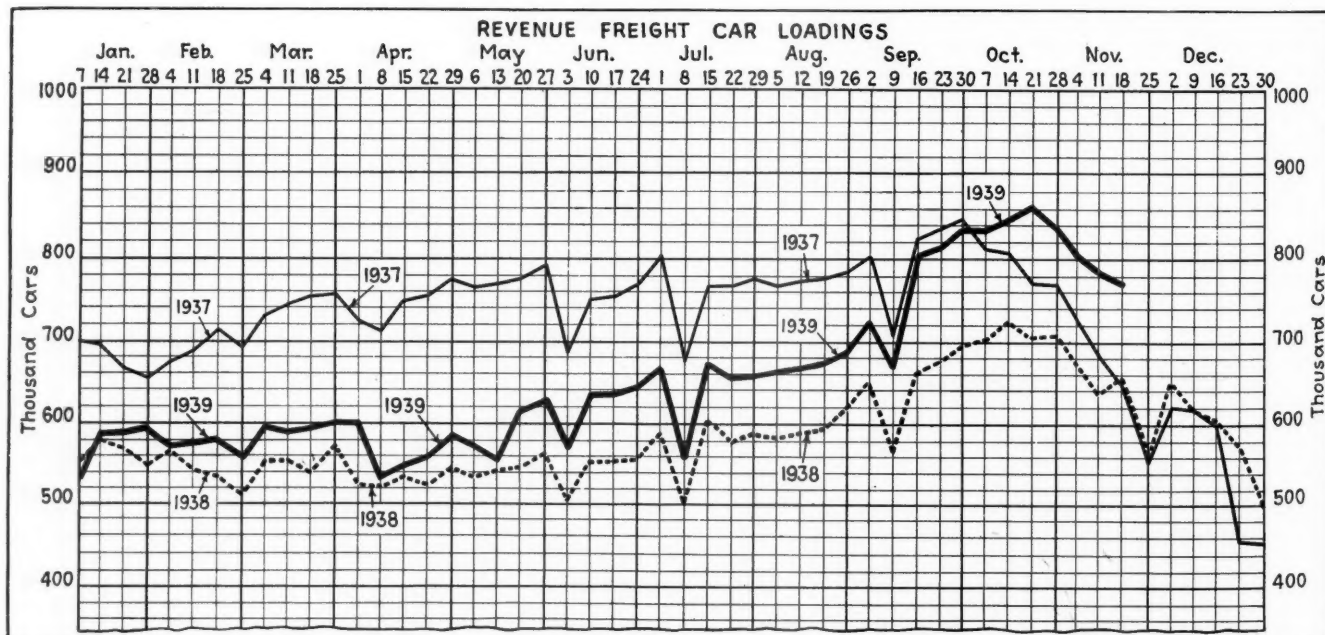
N. A. M. to Select "Modern Pioneers"

In celebration of the 150th anniversary of the founding of the American patent system which will be held next year, the National Association of Manufacturers has launched a "Modern Pioneer" program to honor outstanding "explorers" of the new scientific frontiers. A committee on awards headed by Dr. Carl T. Compton, president of the Massachusetts Institute of Technology, and including in its membership more than 80 leading industrialists and five eminent scientists, will review the qualifications of nominees and determine whether they are to be designated as "modern pioneers." Early in 1940, industrial communities throughout the nation will honor at local or regional dinners, their "modern pioneers" selected by the committee on awards. Later, on February 27, a national dinner will be held in New York at which from five to 15 of the nation's outstanding modern pioneers will receive awards.

Among the members of the committee on awards are W. L. Batt, president, SKF Industries, Inc. and G. A. Blackmore, president, Westinghouse Air Brake Company.

Road is Denied Increase in Mail Pay

Upholding the proposed finding of Examiner M. J. Walsh, details of which were given in the *Railway Age* of September 2, page 354, and standing upon a prior decision of Division 5, Division 3 of the Interstate Commerce Commission has found that the New Jersey & New York is not a separately operated railroad within the meaning of the findings and orders in the Railway Mail Pay case, 144, I. C. C. 675, and is, therefore, not entitled to the higher



rates for the transportation of mail established for separately operated roads less than 50 miles in length. Examiner Walsh had found that the company had no equipment of its own and depended entirely on the Erie for it.

Commissioner Mahaffie wrote a short dissent, saying that since the commission's prior report in the case, both the Erie and the New Jersey & New York have gone into bankruptcy. He further pointed out that the bankruptcy estates are separate and gains or losses by one do not affect the other. "In view of the showing now made," the Commissioner concluded, "we should find the applicant to be a separately operated railroad."

I. C. C. Order Requires Tonnage Reports by Geographical Areas

Beginning with January 1, 1940, and thereafter unless otherwise ordered, Class I railroads other than switching and terminal companies will be required to submit to the Interstate Commerce Commission quarterly reports showing tons of freight originated and terminated by commodities in each of a specified list of geographical areas, which are the states and the District of Columbia, except that the six New England states are treated as one area. The commission's order, made public this week, requires similar reports annually from Class II carriers.

The order specifies that the number of tons reported shall be shown separately for the various classes of commodities set forth in the order governing the reporting of freight commodity statistics, "except Class 710, All l. c. l. Freight." The reports are to be forwarded in duplicate to the Bureau of Statistics on or before the last day of the second month succeeding the close of the period for which they are compiled. Carriers located entirely within a single geographical area may omit their tonnage from the report, "but shall indicate by endorsement thereon the single area in which located."

P. & S. Division Announces Contest

A competition among employees of railway purchasing and stores departments for papers on railway supply work will be held again this year by the Purchases and Stores Division, A. A. R. The authors of the two best papers submitted will be invited to read their papers at the next annual meeting of the division and will receive special mention in the annual proceedings of the Association.

Eight subjects have been suggested as follows:

The best methods of handling and checking material at line points; the value of the scrap dock and reclamation plant as a source of material supply; how can purchasing and stores department employees best help in procuring traffic for their railroads; public relations; material distribution in all its phases; advantages derived from storing analogous material together, within standard material classes; the most practical and efficient method of providing material for program work; and the purchasing and stores department's place in the general scheme of railroad operation. Contestants, however, may use any subject

relating to activities of purchases and stores departments but are instructed to avoid abstract discussions and to confine their selection to subjects relating to actual operations.

All papers are to be submitted to the secretary, 30 Vesey St., New York, and will be judged by a committee consisting of C. B. Tobey, general storekeeper, Lehigh Valley; C. L. Wakeman, general storekeeper, Wabash; and J. C. Kirk, assistant purchasing agent, Chicago, Rock Island and Pacific.

Gormley Discusses Railroad Capacity

M. J. Gormley, executive assistant of the Association of American Railroads, has amplified the material on railroad capacity which he has been using in recent addresses and published in pamphlet form a comprehensive treatise entitled "Railroad Capacity and Traffic Control."

Much of the material in the pamphlet was used by Mr. Gormley for his October 5 address before the Atlantic States Shippers' Advisory Board at Atlantic City, N. J., which address was published in full text in the *Railway Age* of October 7, page 526. Among other new material are the sections on the relation of the war load to total traffic and the lessons in transportation to be learned from the World War operation.

In the former connection, Mr. Gormley estimates that the maximum war load of freight traffic at any one time would not be in excess of 12 per cent of the normal commercial load, while troop movements in the last war comprised only about six per cent of the total passenger movement that took place during the same period. Among the lessons Mr. Gormley lists one calling for care not to magnify the possible war load and another calling for the adoption of methods that will prevent accumulation of loaded cars due to inability of receivers to unload promptly upon arrival.

Appendices in Mr. Gormley's pamphlet set forth the plan of organization and principal activities of the A. A. R.; instructions governing the placing and handling of embargoes; and the plan for controlling port traffic.

"Chicagoan" and "Kansas Cityan" To Serve Oklahoma and Texas

The service of the "Kansas Cityan" and the "Chicagoan" now operated by the Atchison, Topeka & Santa Fe between Chicago and Wichita, Kan., will be extended to Tulsa, Okla., and Oklahoma City, and to Ft. Worth, Texas, and Dallas, effective December 10. Under the new schedule the train will cover the 835 miles between Chicago and Oklahoma City in 15 and 14¾ hours respectively. The Kansas Cityan will leave Chicago at 9:30 a. m. and will arrive in Kansas City at 5 p. m., as at present, and will arrive in Oklahoma City at 12:30 a. m. the next morning. The Chicagoan will leave Oklahoma City at 6:45 a. m. and will arrive in Kansas City at 1:45 p. m. and Chicago at 9:30 p. m., as at present.

A new lightweight Diesel-electric train consisting of a diner, a parlor observation

car and chair cars, will be established between Kansas City and Tulsa to connect with the Kansas Cityan and the Chicagoan. This new train will leave Kansas City at 5:20 p. m. and will arrive at Tulsa at 10:10 p. m., while returning it will leave Tulsa at 8:40 a. m. and will arrive in Kansas City at 1:30 p. m.

Service to Ft. Worth and Dallas will be provided by a 14-section sleeping car which will be operated between Kansas City and these cities on the Kansas Cityan and the Chicagoan and trains No. 15 and 16. No. 15 leaves Oklahoma City at 12:40 a. m. and arrives in Ft. Worth at 6:25 a. m. and Dallas at 7:45 a. m., while No. 16 leaves Dallas at 9:30 a. m. and Ft. Worth at 10:30 p. m. and arrives in Oklahoma City at 4:10 a. m.

Jersey Commuters Scared by Threat to Close Northern Line

An order on November 18 by the U. S. District Court at Cleveland, Ohio, authorizing the Erie to disaffirm its lease of the 26-mile Northern of New Jersey, a suburban road extending northward from Jersey City, N. J., effective January 31, 1940, has stirred up the town officials along the line, who fear either its complete abandonment or cessation of commuters' service and continued operation of local freight service only. Mayor Tipping of Englewood called an "emergency" meeting of civic officers and business leaders for November 28 to determine what they might do to assure continued operations. This was later postponed to the following evening because (so an Englewood cop told your reporter) the Mayor had a cold.

Judge I. S. Reeve, co-trustee for the bondholders of the Northern, states that the Cleveland decision does not of itself mean abandonment of the line, indicating that the Erie might be willing to operate the road on more favorable terms or that the Northern might undertake operation on its own account. It does not at present own any equipment, except a caboose purchased for "the crisis" by an enthusiastic stockholder, and uses Erie terminal trackage and ferries at Jersey City, but Judge Reeve stated that since it parallels the West Shore (New York Central) at North Bergen, a physical connection could be made and arrangements made for the use of the Weehawken terminal and ferries of the latter road. This arrangement would shorten the Northern's rail distance to New York by about five miles and afford an entrance to mid-town Manhattan via the West Shore ferry to 42nd street.

8 1/3 Cents Per 100 Lb. Rate Is too Low for Buffalo-N. Y. Grain

A few days prior to the November 30 expiration date of the tariffs under which the condemned charges have been operative, the Interstate Commerce Commission, Division 4, has found that the reduced rates made effective April 19 on ex-lake grain for export from Buffalo, N. Y., Erie, Pa., and Oswego, N. Y., to North Atlantic ports are less than a reasonable minimum. The finding was that the key rate of 8.33 cents per 100 lb. on wheat from Buffalo to New York is less than a minimum reasonable charge to the extent

that it is less than 10 cents per 100 lb.; but no order directing the cancellation of the reduced-rate schedules was considered necessary "in view of the circumstance that all of the rates here in issue are published to expire on a date prior to that upon which an order would become effective."

In the latter connection the commission on November 24, the day before its decision was issued, denied a November 13 motion of respondent railroads to dismiss the proceeding on the ground that the issue had become moot. The schedules involved were filed to meet unregulated water competition during the season of open navigation on the New York State Barge Canal and the St. Lawrence. As noted in the *Railway Age* of April 22, page 707, the commission first suspended the tariffs, but four days later lifted the suspension, allowing the schedules to become effective while the investigation of their lawfulness proceeded. Division 4's report which winds up the proceeding (I. & S. No. 4618) was written by Commissioner Miller.

Truckers Pass Hat to Raise Propaganda Fund

To aid its campaign to raise a fund of at least \$500,000 a year with which to carry on an elaborate public relations and advertising program, the American Trucking Associations, Inc., has prepared a large 16-page booklet in color entitled "Trucking Seeks Friends" for distribution to members of the for-hire industry and traffic managers of firms who do their own hauling. Herein it is announced that the executive committee of the organization has appointed a 25-man public relations committee of operators from all sections of the country which will steer a national program of good-will promotion.

It is understood that companies engaging in commercial hauling, whether common, contract or private carrier, will be approached for support by subscription on a pro-rata scale. The fund-raising campaign was initiated early in November and it is anticipated that campaign meetings will be held in over 50 large cities to acquaint possible supporters with the provisions of the plan.

Chief feature of the advertising program is a series of full-page "public-education" displays in leading periodicals, the first one of which was carried in the October 28 "Saturday Evening Post." "A constant follow-up" is proposed under such titles as "Trucks pay their share," "Ten truck drivers brought your breakfast" and "Let 'em Roll" (title of the A. T. A. propaganda booklet distributed publicly in September).

The authors of the campaign appeal believe that the attitudes of the average citizen toward trucking include annoyance at the presence of freight vehicles on the highways; the belief that trucks cause most of the congestion; the idea that trucks do not pay their way; and, for the rest, indifference to their services. This bundle of attitudes A. T. A. proposes to attack on the theory that "a truth well-told always kills a lie." Advertising space will be taken in national magazines, "edu-

cational" pamphlets, publicity and display advertising material will be distributed and canned speeches will be furnished to speakers at all types of functions, and the safety and courtesy propaganda activities already carried on by A. T. A. will be intensified and extended.

Rail and Water Lines Kick at Low Truck Rates to Southeast

Approximately 45 railroads and steamship companies which publish joint rail-water rates between North Atlantic ports on the one hand and interior southeastern points on the other, have petitioned the Interstate Commerce Commission to make an investigation of competing motor carrier rates in the same territory. The motor carrier rates, the petition said, "are unreasonably and unnecessarily low and have the effect of depriving the water and rail carriers of a fair and reasonable opportunity to compete for this traffic". The petition further pointed out that the truck rates generally are as low or lower than the joint rail-water rates.

The petitioners assert that "they cannot successfully compete via these routes for this high-grade merchandise traffic on a parity of rates with the all-truck routes for the following reasons":

1. The time in transit by rail-water is greater than by truck.

2. Truck service is direct while the ocean-rail lines must necessarily have a broken and interrupted service necessitating increased handling.

3. The cost of packaging freight which is handled by the rail-water routes is higher than the cost of packaging similar freight for trucks.

The petitioners "request a general investigation by the commission at such a time and place as it may direct and that after a full hearing the commission shall determine and prescribe minimum lawful rates for the transportation of this traffic by motor carriers."

The territory affected lies between Boston, Providence, New York City, Philadelphia, and Baltimore, on the one hand, and southeastern and Carolina territories, including Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama and Tennessee, on the other.

Horses by Truck Take a Nice Piece of Change From the RRs

The transportation of race and exhibition horses in the United States brings a revenue of over \$3,000,000 a year, according to an article appearing in the current issue of "Country Life." Whether horses are to be shipped by railroad or by highway van depends upon the following factors, according to the article: (1) The length of stay at points of destination; (2) the amount of money the owners will spend for freight; (3) relationship of one stop to another as to route, length of haul, etc., and (4) previous custom. It is pointed out that railroad transportation is by far the more expensive; that shippers must adapt themselves to railroad timetables, whereas by truck they may load and ship according to their own convenience and that shipment by freight requires crating of the horse, "which runs into money." It is the

article's conclusion that long hauls in the thoroughbred racing sport are handled in the best but most expensive way—by rail, whereas hauling for horse shows, be it long or short haul, is usually done by motor van.

It points out that in theory short hauls are the province of the motor vans; long haul shipments that of the railroads. In point of fact, however, improved vans and highways, coupled with too much poor railroad service, has given the vans many times the business of the railroads on shipments traveling up to 1,000 miles.

Speaking of rates the article says categorically that railroad rates are high and van rates are low. It is declared: "To begin with, railroad rates in many cases are based not on operating costs, but upon an atrophied rate structure. A fearful and complicated device. And the old-fashioned rates agreed upon by the railroads are enforced by the Interstate Commerce Commission. That might be all right—but. For some strange reason, the Interstate Commerce Commission does not govern livestock (and fish!) movements by motor truck [race-horses are classed as livestock in rail and truck tariffs.—Ed.] Because of this omission, private truck rates are the custom and chiseling is the rule."

Anthracite Men Hear of Diversions to Trucks

That there is good reason to suppose that trucks will be hauling up to 8 million tons of Pennsylvania anthracite to market in the near future, if the present trend continues, with a loss in gross revenue to the railroads of \$16,000,000 (at an average freight rate of \$2 per ton in the motor-compelled area), was the statement of Louis C. Madeira, executive director, Anthracite Institute, in an address before the Fuel Merchants Association of New Jersey, at Atlantic City, November 16. The speaker pointed out to the mixed audience of coal dealers and railroad men that this estimated loss of revenue looks pretty large compared with \$91,000,000 in total revenue from anthracite traffic for all railroads in 1938.

Citing the statistics available to show the present extent of coal trucking, Mr. Madeira declared that legitimate producers alone report to the Pennsylvania Department of Mines a total trucking of 3,500,000 tons annually to market, while it is estimated that an additional volume of 2,500,000 tons of "bootleg" coal, unreported is trucked annually.

Reports show that a total of 357,000 tons were trucked into New Jersey during the first nine months of this year, which figure does not include a large tonnage of unreported shipments. The speaker emphasized that while in 1930, anthracite trucking was limited to a local "twilight zone" in adapted vehicles carrying from one to 2½ tons, the weighted average of 1,000 trucks picked at random as they passed over the New Jersey border last August was 9.25 tons per load. Nor is the diversion entirely in direct-to-consumer shipments, the speaker contended. Most of the loads checked recently at the New Jersey border were destined for dealers' yards and one truck out of six carried

split loads. The trucking of industrial steaming grades is also growing; it is reported that one large steel company is trucking rice and barley sizes at the rate of 500 tons daily in 14-ton trucks and when its new boiler plant is completed will be trucking approximately 225,000 tons annually.

Railroads Ask Nine Tax-Law Amendments

Nine changes in the internal revenue law were advocated by the Association of American Railroads in recent memoranda submitted to the Treasury staff in response to a request from Under-secretary John W. Hanes who has been directing Treasury preparations for conferences with a subcommittee of the House of Representatives committee on ways and means.

Amendments asked by the railroads would permit:

Filing of consolidated returns so as to include lessor railroad corporations in the affiliated group, without regard to stock ownership, provided that the lessee, and not the lessor, has the obligation to pay the income tax of the lessor.

Allowances for losses on retirement of owned property and for losses less depreciation on leased property.

Deductions from gross income of amounts expended during a taxable year for changes in existing facilities made for such betterments as increased weight of rail, strengthening of bridges, or other like betterments, or incurred to promote safety to the public or increased efficiency in operation, or when made pursuant to requirements by or agreements with federal, state or other public authority.

Deductions for amounts expended in discharge of indebtedness, which would also permit railroads to buy their own obligations at a discount without incurring tax liability for the resultant paper profits.

Recognition of losses accruing to railroad security holders through corporate reorganizations.

Carrying over for five years instead of two of railroad losses deductible under the long-term capital gains and losses provision.

Exclusion of resident individuals, fiduciaries and partnerships from the requirement that a corporation shall withhold two per cent of the interest on so-called tax free covenant bonds of the corporation issued before January 1, 1934.

New declarations of value of capital stock each year for capital stock and excess profits tax purposes, i. e. to make the return and taxing base for excess profits tax purposes the same as the return and taxing base for income tax purposes.

The same period for the filing of claims for refunds as is now accorded the Commissioner of Internal Revenue for the assessment of deficiencies.

October Truck Loadings Highest on Record

October truck loadings were 4.5 per cent above September, "marking the third successive month in which motor traffic has reached a new all-time peak," according to the American Trucking Associations,

Inc., monthly survey. The A. T. A. index, based on the 1936 monthly average as 100, stood at 151.26 for October as compared with 143.56 in September and 113.38 for October, 1938.

Comparable reports received from 193 carriers in 38 states showed that the October loadings were 25.6 per cent above October last year. The reporting truckers carried 1,070,897 tons of freight in the month under review, as compared with 1,025,093 tons in September and 852,874 tons in October, 1938.

General merchandise, accounting for a little more than 74 per cent of the total tonnage reported for October, showed an increase of 2.8 per cent over the preceding month, and a 25.2 per cent increase over October, 1938. Comments of the reporting carriers indicated that "the increases would have been greater had not labor troubles resulted in the loss of some business." Petroleum products, representing 11 per cent of the total tonnage reported, showed a 4.2 per cent decrease under September, "occasioned by a normal seasonal decline in the petroleum field." The volume of petroleum products for October was, however, 24.8 per cent greater than in the same month last year.

By far the greatest increase was reported by carriers hauling automobiles, which constituted 4 per cent of the traffic reported. Movement of automobiles in October increased 102.6 per cent over the previous month, and 96.9 per cent over the corresponding month a year ago. These increases were attributed to the fact that during a large part of October, 1938, and September, 1939, the manufacturers were closed down to change models. Accounting for almost 5 per cent of the total freight reported, iron and steel products also gained in volume. Movement of iron and steel increased 16.1 per cent as compared with September, and 34.6 per cent as compared with October, 1938. Increased movement of these commodities was attributed to the general business upswing. More than 5 per cent of the total freight reported was made up of miscellaneous commodities, including tobacco, textile products and household goods. These groups reported an increase of 2.6 per cent over September, and slight increase of 0.4 per cent over October, 1938.

Hopkins Sponsors "Study" of Interstate Trade "Barriers"

Secretary of Commerce Harry L. Hopkins on November 24 announced the formation of an Interdepartmental Committee "to study and coordinate Government activities for combatting serious inroads to the free flow of commerce in the United States resulting from interstate trade barriers." Among such alleged "barriers," the more effective of state motor vehicle regulatory laws are usually listed.

In letters to the heads of the Departments of State, Labor, Agriculture and Justice, and to the Federal Works Agency and the National Resources Committee inviting the appointment of representatives, Secretary Hopkins said:

"For several years a number of government agencies have been giving attention

to the problem of the increasing barriers to interstate trade. I have been concerned about the growth of these barriers and have had our Division of Industrial Economics working on the problem. However, it would seem that the Government might function more effectively if the various interested agencies were to join forces or at least coordinate their efforts. I, therefore, propose to set up an informal interdepartmental committee for this purpose."

According to Secretary Hopkins' proposals, the various agencies would appoint representatives to meet with Commerce Department officials and undertake effective means of working against trade restrictions. The committee would be a liaison between the Federal Government and the Conference of State Governments. In the course of its activities the committee would be expected to serve as a clearing house for information relative to developments in State "trade barriers" and would also "facilitate cooperation in research and study of the economic effects of such laws and regulations."

"Following formation of the Committee," Secretary Hopkins said, "hearings before the Temporary National Economic Committee will be sought to present evidence of the economic effects of present-day State laws which obstruct the free flow of commerce." Paul T. Truitt, member of the Commerce Department's Industrial Economics Division, who was appointed chairman of the committee, plans to confer with Senator O'Mahoney, of Wyoming, chairman of the TNEC, with regard to the possibility of scheduling hearings on the subject.

The Interdepartmental Committee is also expected to "cooperate with trade associations, professional groups and other business organizations affected by the trade barrier problem."

Secrecy in Truck Contracts Fades

(Continued from page 858)

valuable articles, which have been exempt from previous orders with respect to the filing of contracts. Also exempt are contract truckers "engaged exclusively in package deliveries or other strictly local services" which do not interchange traffic or participate in through routes and rates.

Chairman Eastman's dissenting opinion argues that Congress did not in the Motor Carrier Act undertake to protect shippers in their dealings with contract truckers; it gave the commission power to prescribe minimum charges in order to protect competing common carriers. In Mr. Eastman's view, knowledge of the published minimum charges places the commission in as good a position to administer the contract-carrier regulatory provisions as would a knowledge of actual charges. "I am," says the chairman, "reluctant to require a public disclosure of their actual charges and of all the terms of their contracts with shippers, which may possibly be of some detriment to the latter, unless there is good reason to believe that such a public

disclosure is necessary to accomplish the objectives of the act. In my judgment no such good reason has here been shown."

Commissioner Lee's partial dissent set forth detailed arguments in support of his belief that the majority "misconstrue the act." But even if the commission has all the authority claimed by the majority, he finds "not the slightest excuse, as yet, for departing from the untried fundamental plan of the act with respect to contract carrier regulation in favor of a program calculated, in my opinion, not to facilitate regulation, but to extract information desired by common carriers for competitive uses. The only justification, therefore, is the erroneous premise that contract carriers are being regulated solely in order to protect common carriers. I cannot lend myself to any such theory."

Commissioner Caskie disagreed with the majority view that the commission can require the contract carriers to divulge their actual rates, except where such rates are also minimum rates; nor does he think that it can legally open the contracts to public inspection. He would revise the requirements under the Ex Parte No. MC-9 orders and the Ex Parte No. MC-27 questionnaire accordingly.

Commissioner Alldredge questioned "both the propriety and legality of the course outlined in the majority report. . . ." In his opinion it would be a strange paradox for Congress to provide penalties for contract carriers, brokers and I. C. C. agents disclosing information which might be used to the detriment of shippers; and "at the same time to permit us to require the submission of such information for the purpose of making it available to the general public."

Private Trucks Do No Damage?

(Continued from page 858)

mulgate rules for private trucks without obtaining a mandate from Congress on the basis of a report finding a need for such regulation. Wilbur LaRoe, Jr., representing Eastern meat packers, argued, as he put it, against "unreasonable" regulations which would unduly disturb normal operations. He did not object to "reasonable" rules. His clients, he contended, were safe truck operators; and he thought it strange that he should be arguing against regulations while safety organizations are "pinning medals on my clients."

Harry C. Ames, counsel for associations of ice cream manufacturers, butter and milk dealers, thought those industries should be exempt, and he proposed a plan whereby, he contended, the commission could regulate where there is need therefor and exempt where exemption is justified. He would have the commission promulgate its regulations with a provision whereby any group of operators would have an opportunity to show cause why they should be exempt. R. D. Rynder of Swift & Company did not argue much about the proposed report; he urged the commission to include in its decision clear definitions which would enable a private truck operator to determine whether a particular driver were subject to the I. C. C.

or to the Wages and Hours Administration. P. E. Blanchard of Armour & Company stated that the proposed regulations would not affect the trucking operations of that concern except in one particular; he wanted a broader definition of the word "stop" as used in the so-called 10-minute rule whereby stops of not less than ten minutes may not be deducted from driving time. Citing specific situations in peddler-truck operations, he asked that multiple stops in one municipality or commercial zone be interpreted as one stop so long as the truck did not travel more than ten miles between the first and last stop in such zone. Also, he would have the commission specify the information it wanted from the driver's log rather than the form in which the log should be kept, his point being that operators can thereby obtain what additional information they want for themselves without requiring the driver to make out more than one trip report.

W. H. Ott, representing the Kraft-Phoenix Cheese Corporation, argued for the exemption of that class of operation which he called driver-salesmen. His client's difficulty, he said, would be mainly with the proposed 60-hour week, since the driver-salesmen, paid on a small-salary-plus-commission basis, often work a longer week. R. M. Davitt of the New York Motor Truck Association was against any regulation by the I. C. C., while E. W. Kerwin of the Loose-Wiles Biscuit Company was in favor of the regulations generally, but he thought some of them were unnecessary and might be troublesome. R. A. Cooke, representing the American Newspaper Publishers Association, asked that his clients be given special consideration in view of their need for a more flexible provision as to the limit on daily hours. He cited specifically the situation wherein a newspaper must deliver a Saturday afternoon issue and bring its drivers back to work on the Sunday edition.

Mr. Cooke was followed in turn by the above-mentioned counsel for American Transit Association—C. D. Cass—and W. A. Quinlan, representing the American Bakers Association. Mr. Quinlan agreed with Mr. Pierce's view that the law now empowers the commission only to report to Congress on the need for regulation; but if regulations are nevertheless promulgated he wants the baker's driver-salesmen exempt from the hours of service rules, and other "relatively minor" exemptions.

Next came the arguments on behalf of the Wages and Hours Administration, presented by George A. McNulty and John E. Skilling. The latter admitted to Chairman Eastman that under the Fair Labor Standards Law a driver could remain at the wheel 24 hours straight—in fact for a period up to 42 hours in a week without running into overtime. Mr. Skilling thought cases wherein drivers subject to the Wages and Hours Law worked longer hours than those prescribed in I. C. C. safety regulations would be "rare." After the McNulty-Skilling argument, Mr. Ames made a formal motion that the commission remand the proceedings to the examiner for further hearing and the taking of evidence as to the impact of the Wages and Hours Law on drivers of private

trucks. The motion was taken under advisement.

The aforementioned presentation on behalf of the Department of Agriculture was made by Willis Crane, who was followed by A. F. Beasley, representing the Private Carrier Division of American Trucking Associations, Inc. The latter oppose the examiner's report with a fundamental objection going to Mr. Snow's conclusion that there is a need for the regulation.

Argentine Railway Earnings Up; Equipment Buying Planned

The total operating revenues of the Argentine railways in the first eight months of this year amounted to \$103,135,500, as compared with \$94,917,600 for the corresponding period of 1938. Privately-owned roads showed receipts of \$84,478,800, as compared with \$77,743,500, while the state railways enjoyed revenues totaling \$18,656,700, as against \$17,174,100 for the corresponding period of 1938.

In view of increasing business, substantial sums are being expended for new equipment. The Argentine Congress has received a petition for a decree to authorize the Administration of the State Railways to spend up to 10,000,000 pesos (approx. \$3,000,000) for the rehabilitation of approximately 186 miles of line. Due to high costs of imported coal, a large number of Diesel locomotives and rail-cars are being imported to take the place of steam locomotives. A few months prior to the outbreak of the war, the Argentine State Railways entered into an agreement with Germany to exchange agricultural products for 64 Diesel locomotives, 900 flat cars, 30 passenger coaches and a large number of tank cars. Germany has found herself unable to manufacture or ship the equipment ordered and it is anticipated that these orders will go elsewhere. Already the Argentine State Railways have announced that an order for 200 tank cars has been placed with an American firm, as reported in the November 11 issue.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

- AIR BRAKE ASSOCIATION.—R. P. Ives, 350 Fifth Ave., New York, N. Y.
- ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago, Ill.
- AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, F. T. R. M. & O. R. R., 327 S. La Salle St., Chicago, Ill.
- AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, 1431 Railway Exchange Bldg., St. Louis, Mo.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Union Station, St. Louis, Mo. Annual meeting, June 4-6, 1940, Hotel Stevens, Chicago, Ill.
- AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill. Annual meeting, January 19-20, 1940.
- AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—C. A. Lichty, 319 N. Waller Ave., Chicago, Ill.
- AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York, N. Y.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—J. M. Hurley, N. Y. O. & W. Ry., Middletown, N. Y. Next meeting, December 8-9, 1939, Netherland Plaza Hotel, Cincinnati, Ohio.
- AMERICAN RAILWAY ENGINEERING ASSOCIATION.—

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Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—M. W. Jones, Baltimore & Ohio R. R., 1105 B. & O. R. R. Bldg., Baltimore, Md.

AMERICAN RAILWAY TOOL FOREMEN'S ASSOCIATION.—G. G. Macina, C. M., St. P. & P. R. R., 11402 Calumet Ave., Chicago, Ill.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. H. Hunt, Tower Bldg., Washington, D. C.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York, N. Y. Annual meeting, December 4-8, 1939, Bellevue-Stratford Hotel, Philadelphia, Pa.

Railroad Division.—Marion B. Richardson, 21 Hazel Ave., Livingston, N. J.

AMERICAN TRANSIT ASSOCIATION.—Guy C. Hecker, 292 Madison Ave., New York, N. Y.

AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St., N. W., Washington, D. C. Annual meeting, January 23-25, 1940, Hotel Coronado, St. Louis, Mo.

ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington, D. C.

Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington, D. C.

Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Operating Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Transportation Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y.

Freight Station Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y.

Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.

Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.

Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y.

Mechanical Division.—V. R. Hawthorne, 59 E. Van Buren St., Chicago, Ill.

Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago, Ill.

Purchases and Stores Division.—W. J. Farrell, 30 Vesey St., New York, N. Y.

Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill.

Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington, D. C.

Car-Service Division.—E. W. Coughlin, Transportation Bldg., Washington, D. C.

Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.

Accounting Division.—E. R. Ford, Transportation Bldg., Washington, D. C. Annual meeting, 1940, White Sulphur Springs, W. Va.

Treasury Division.—E. R. Ford, Transportation Bldg., Washington, D. C.

Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill. Annual meeting, May 15-17, 1940, Providence Biltmore Hotel, Providence, R. I.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—W. S. Carlisle, National Lead Company, 900 W. 18th St., Chicago, Ill. Meets with American Railway Bridge and Building Association.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4468 Oxford Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month except June, July and August, Windsor Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—Frank

Kartheiser, Chief Clerk, Mechanical Dept., C. B. & Q., Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—G. K. Oliver, 2514 W. 55th St., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—Mrs. M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—J. T. Bougher, 424 W. 33rd St. (11th floor), New York, N. Y.

INTERNATIONAL RAILWAY GENERAL FOREMEN'S ASSOCIATION (See Locomotive Maintenance Officers' Association).

INTERNATIONAL RAILWAY MASTER BLACKSMITHS' ASSOCIATION.—W. J. Mayer, Michigan Central R. R., Detroit, Mich.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—J. E. Goodwin, Shop Superintendent, Missouri Pacific R. R., No. Little Rock, (P. O. Little Rock), Ark.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Clyde S. Bailey, New Post Office Bldg., Washington, D. C. Annual meeting, December 10-12, 1940, Miami Fla.

NATIONAL RAILWAY APPLIANCE ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill. Exhibit in connection with A. R. E. A. Convention, March 11-14, 1940, International Amphitheatre, Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y. Annual dinner, December 7, 1939, Hotel Commodore, New York, N. Y.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box 3275, San Francisco, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, and second Friday of each alternate month at Hotel Hayward, Los Angeles.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 600 W. Jackson Blvd., Chicago, Ill.

RAILWAY FIRE PROTECTION ASSOCIATION.—(See Association of American Railroads.—Fire Protection and Insurance Section.)

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, 1255 Old Colony Bldg., Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone section of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 903 Syndicate Trust Bldg., St. Louis, Mo. Annual meeting, May 21-22, 1940, Brown Hotel, Louisville, Ky.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—C. A. Lichty, 319 N. Waller Ave., Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R., Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga. Ry., Savannah, Ga. Next meeting, January 25, 1940, Nashville, Tenn.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, O. & C. Company, 59 E. Van Buren St., Chicago, Ill. Meets with Roadmasters' and Maintenance of Way Association.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y.

WESTERN RAILWAY CLUB.—W. L. Fox (Executive Secretary), Room 822, 310 South Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

Equipment and Supplies

LOCOMOTIVES

THE PANAMA RAILROAD, CANAL ZONE, has ordered five Diesel-electric locomotives from the General Electric Company.

THE NEVADA CONSOLIDATED COPPER COMPANY has ordered seven electric locomotives from the General Electric Company.

THE CENTRAL OF GEORGIA has ordered one Diesel-electric switching locomotive of 600 hp., from the Electro-Motive Corporation.

THE TENNESSEE CENTRAL has ordered one Diesel-electric switching locomotive of 660 hp. from the American Locomotive Company.

THE CHICAGO, ROCK ISLAND & PACIFIC has ordered 10 Diesel-electric switching locomotives, each of 360 hp.; five from the Davenport-Besler Corporation, and five from the Whitcomb Locomotive Company.

THE PAULISTA RAILWAY (BRAZIL) has placed orders with the General Electric Company for four direct-current electric locomotives to weigh 185 tons each and to have a maximum speed of 93 miles an hour. The continuous horsepower rating is 4,200 and the one hour rating is 4,560. They will be powered by 3,000-volt direct-current motors and the locomotives will be of 5 ft. 6 in. gage. Shipment of the first of these locomotives was recently made.

FREIGHT CARS

THE PITTSBURGH & WEST VIRGINIA is building five caboose cars in its own shops.

THE INTERNATIONAL RAILWAYS OF CENTRAL AMERICA have ordered five tank cars of 7,500 gal. capacity from the Magor Car Corporation.

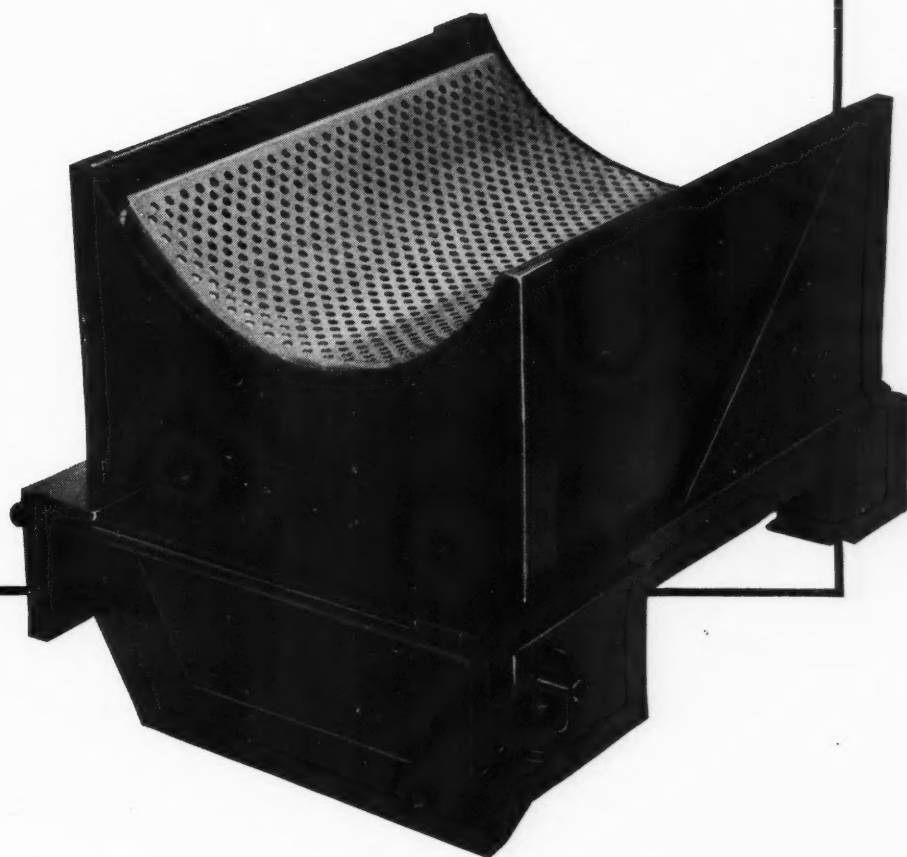
THE GENERAL AMERICAN TRANSPORTATION CORPORATION has been authorized by the Interstate Commerce Commission to construct 50 additional fusion-welded tank cars for experimental service in the transportation of petroleum products.

SIGNALING

THE ATLANTA TERMINAL has placed a contract with the General Railway Signal Company for materials for two interlocking plants, one at North Tower and the other at South Tower, Atlanta, Ga. These machines will be of the Model-2 unit lever type, the one for North Tower to have 71 working levers and 9 spare spaces, and the other for South Tower to have 66 working levers and 6 spare spaces. Included in the materials are 70 model 5A switch machines, 12 tower cases, 72 type MA dwarf signals, 55 model 2 form A line relays, and 96 type K relays.

Continued on next left-hand page

MAXIMUM LUBRICATION



with a minimum of weight

The weight of the new Franklin No. 8 Combined Lubricator & Spreader is materially less than that of the old style cast steel device, yet an even better lubricating job is being done. » » » The hub end wall, formerly a part of the cellar, is now integral with the spreader and so shaped as to permit the use of an endless steel cellar weighing less than half of the old style cellar. The spreader has ample strength to resist the crushing effect of the driving box jaws. This permits ready removal of the cellar for cleaning or repacking and results in a reduction in the out-of-service time of the locomotive. » » » For better lubrication and ease of handling, specify the Franklin No. 8 Combined Lubricator & Spreader on new power or for replacements.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK

CHICAGO

MONTREAL

December 2, 1939

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Supply Trade

J. B. Peddle, Paul Brown building, St. Louis, Mo., has been appointed St. Louis district sales representative for the **McConway & Torley Corporation**, Pittsburgh, Pa.

J. F. Tait, assistant manager for the Eastern sales district of the **Bucyrus-Erie Company**, in charge of the Philadelphia, Pa., office, has been promoted to district manager of the Pittsburgh sales district with offices at Pittsburgh, to succeed **P. B. Heisey**, resigned.

Henry Billing has been elected a vice-president of the **Collins Oil & Manufacturing Co., Inc.**, New York; his activities will be in both the railroad and industrial fields. The Collins Oil & Manufacturing Co., Inc., entered into a contract on September 1, with the Asphalt Process Corporation under which it will act as its sole sales representative for all of the products manufactured by the Asphalt Process Corporation.

Maynard D. Church has been elected a vice-president of the **Worthington Pump & Machinery Corp.**, Harrison, N. J. Mr. Church is also president of the Moore Steam Turbine Corporation, Wells-ville, N. Y., a Worthington subsidiary, and will continue in charge of the Moore operations. **R. W. Towne**, secretary and assistant treasurer since 1936 of the Moore organization, has been elected assistant secretary of the Worthington Pump & Machinery Corp.

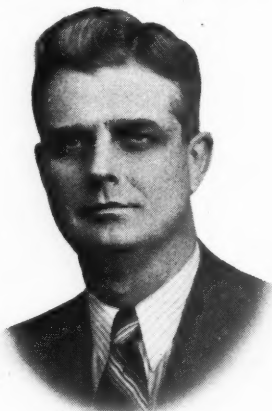
The **Whitcomb Locomotive Company**, Rochelle, Ill., a subsidiary of **The Baldwin Locomotive Works**, has appointed the following sales representatives: **Edward M. Sansom**, formerly in the New York office of the Electric Storage Battery Company, has been appointed district sales manager, with office at New York; **B. L. Beck**, formerly with Fate-Root-Heath Company, has been appointed district sales manager, St. Louis, Mo., and **John R. Heckman**, formerly with the Midvale Company, has joined the sales department of The Whitcomb Locomotive Company, operating from the Chicago office.

The **General American Transportation Corporation** is broadening its interests in the aviation industry through the exchange of its 84 per cent interest in Barkley-Grow Aircraft Corporation for stock in Aviation Corporation, an affiliate of Aviation and Transportation Corporation. In addition, the company will participate in the purchase of an interest in Aviation and Transportation Corporation. At the conclusion of negotiations, General American will hold approximately 75,000 shares, or 2.7 per cent of Aviation Corporation and approximately 160,000 shares or 7.12 per cent of the Aviation and Transportation Corporation. According to **Lester N. Selig**, president of General American, the possibilities of manufacturing and leasing aircraft equipment to feeder lines or those which operate less elaborate equip-

ment than do the major transport lines, is being considered.

G. I. Wright has been appointed railroad representative, with office in the Commercial Trust building, Philadelphia, Pa., for the **Lebanon Steel Foundry**, Lebanon, Pa. Mr. Wright had previously served with the Southern Pacific, Illinois Central, and with the Reading and Central Railroad of New Jersey, as chief electrical engineer. From 1936 to 1938, he was manager of the transportation department of the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. He has also served as chairman of the Electrical Section of the American Railroad Association; also of the Transportation Committee of the American Institute of Electrical Engineers and of the Manufacturers Advisory Committee of American Transit Association. During the World War, he was an assistant engineer officer of the Cruiser, U. S. S. Montana, and is a lieutenant commander, United States Naval Reserve Force.

Harold D. Page, of the engineering department of the **Waugh Equipment Company**, New York, has been elected vice-president of that company, in charge of engineering, with headquarters, as for-



Harold D. Page

merly, at New York. Mr. Page, after completing a technical high school course in Chicago in 1912, worked for a time for the Link Belt Company and studied engineering in the evening courses of the Armour Institute of Technology. He entered the employ of the shops and equipment department of the Chicago City Railway Company in the same year, remaining in that department after the merger of the various street railways to become the Chicago Surface Lines. Mr. Page entered the service of the Waugh Equipment Company on January 1, 1925, and was transferred to New York in 1933.

OBITUARY

Howard M. Starrett, president and chairman of the board of Fairmont Railway Motors, Fairmont, Minn., died at a sanitarium in Boston, Mass., on Nov. 23, after a short illness. He was born in Toulon, Ill., in 1886, and graduated from the University of Minnesota in 1909. In the same year he entered the employ of

Fairmont, with which company he remained until 1913. From the latter date until the war he worked for various com-



Howard M. Starrett

panies, including the Packard Motor Car Company, and during the war he served with the Bureau of Aircraft Production. After the war he returned to Fairmont, in charge of manufacturing. He was elected treasurer in 1926 and in May, 1939, president and chairman of the board.

Charles Pasche, president of the Davenport-Besler Corporation, Davenport, Iowa, died on November 15.

Construction

CANADIAN NATIONAL.—A contract for the grading of approximately two miles of second main-line track east of Truro, N. S., on this road has been let to the Rayner Construction Company, Leaside, Ont. This second main-line track is being provided to facilitate handling of anticipated increase in traffic.

CHICAGO & NORTH WESTERN.—A contract amounting to approximately \$40,000 has been awarded the Anderson Construction Company, Council Bluffs, Iowa, for the construction of a one-story 90-ft. by 100-ft. addition to the enginehouse at Council Bluffs, which will be used as a machine and maintenance shop. The structure will have a concrete foundation and floor, brick walls and steel roof trusses.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—A contract has been awarded the Ross and White Company, Chicago, for a Red-Devil conveyor-type direct engine coaler for installation at Perry, Iowa.

COLORADO & SOUTHERN.—A contract has been awarded the Ross and White Company, Chicago, for a Red-Devil conveyor-type direct engine coaler for installation at Ft. Collins, Colorado.

GRAND TRUNK WESTERN.—A contract amounting to \$102,303 has been awarded Bryant & Detwiler Company, Detroit, Mich., for the construction of an underpass for State Fair Avenue under the

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December 2, 1939

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tracks of this road in Detroit. The structure will consist of four ballast deck semi-through plate girder spans 51-ft. 8-in. long over the roadway, with 13 ft. 3 in. spans over the sidewalk sections. The bridges will make an angle of approximately 60 deg. with the street and will provide a 40-ft. clear roadway and two 9-ft. sidewalks. The substructure will consist of reinforced concrete combination abutments and sidewalk bents.

GULF, MOBILE & NORTHERN-MOBILE & OHIO.—These companies have been authorized by Division 4 of the Interstate Commerce Commission to construct 551.5 ft. of track connecting the main line of the G. M. & N. with a wye track of the Illinois Central near Bemis, Tenn., and 8,781 ft. of track connecting the wye track of the M. & O. at Jackson, Tenn. At the same time these roads were authorized to extend the operations of the G. M. & N. over tracks so constructed and, under contracts for joint use, over 1,858.8 ft. of the I. C. and over 1,933.6 ft. of main line of the M. & O. to reach and enter the Iselin yard of that company, all to effect a physical connection between the main line of the G. M. & N. and the main line of the M. & O. at Jackson, Tenn.

ILLINOIS CENTRAL.—A contract has been awarded the Ross and White Company, Chicago, for a Red-Devil conveyor-type direct engine coaler for installation at Indianapolis, Indiana.

NEW YORK CENTRAL.—A contract has been awarded the Ross and White Company, for a Red-Devil conveyor-type direct engine coaler for installation at Syracuse, N. Y.

NEW YORK, CHICAGO & ST. LOUIS.—A contract has been awarded the Roberts & Schaefer Company, Chicago, for building and erecting a 60-ton steel coaling station at Conneaut, Ohio. The new facilities, which are equipped with single skip-hoist elevating machinery, are placed on a steel tower and will serve two tracks. The project also involves the rearrangement of water facilities and minor rearrangements of main and yard tracks. The total estimated cost of the project is \$23,755.

TEXAS & PACIFIC.—A contract amounting to about \$40,000 has been awarded F. D. Welch, Shreveport, La., for the construction of a one-story freight depot at Shreveport. The structure will consist of a brick head house approximately 40 ft. by 30 ft., a concrete platform with a structural steel roof and open side walls, 30 ft. wide and approximately 240 ft. long and an open concrete platform 30 ft. wide and approximately 120 ft. long.

WABASH.—The Missouri State Highway Department has awarded a contract amounting to \$25,342 to E. H. Krehbiel, Kansas City, Mo., for the construction of a bridge under the Wabash track near Marysville, Mo., to provide an underpass for State Highway No. 4. The bridge will consist of one 45-ft. plate girder span on concrete abutments with a steel grid concrete filled deck.

Financial

ALABAMA, TENNESSEE & NORTHERN.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has postponed from November 28, to February 28, 1940, the date for a public hearing in Washington, D. C., on a plan of reorganization for this company. The hearing will be held before Examiner P. A. Conway.

BIRMINGHAM SOUTHERN.—*Acquisition and Operation.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to acquire and operate a line of railroad owned by the Tennessee Coal, Iron & Railroad Company, extending from Dolonah Junction, Ala., to Dolonah, 2.5 miles. All of the stock of the applicant is owned by the Tennessee company.

BOSTON & MAINE.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon a portion of its Central Massachusetts branch extending from Oakdale, Mass., westerly to Wheelwright, 25 miles, and to abandon operation over a line of the Boston & Albany between Barre Junction, Mass., and Creamery Road, six miles.

CENTRAL OF NEW JERSEY.—*Trustees Appointed.*—Federal Judge Guy L. Fake appointed Shelton Pitney, member of the law firm of Pitney, Hardin & Skinner, Newark, N. J., and Walter P. Gardner, a former lay judge of the New Jersey Court of Errors and Appeals, and president of the recently-closed New Jersey Title Guarantee & Trust Co., Jersey City, trustees of this road on November 27. He set bonds of \$50,000 each on the trustees, whose appointments must be confirmed by the I. C. C. The judge instructed the trustees to consider as their first major problem the railroad's position on the state tax situation. The Central of New Jersey filed a voluntary petition in bankruptcy on October 30, which appeared in the *Railway Age* of November 4.

CHARLES CITY WESTERN.—*Extension of R. F. C. Loan.*—Division 4 of the Interstate Commerce Commission has approved the extension for a period not later than July 1, 1941, of the time of payment of \$100,000 of the loan to this company by the Reconstruction Finance Corporation which matured November 14, 1939.

CHESAPEAKE & OHIO.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon the portion of its main line extending from milepost 0 at Fort Monroe depot, Va., to the point of switch connection with the tracks of the United States Government, 3,448 ft., on the United States Military Reservation at Fort Monroe, Elizabeth City County, Va.

CHICAGO & EASTERN ILLINOIS.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has certified to the United States District Court for the Northern District of Illinois, Eastern Division,

the following results in the balloting on the acceptance or rejection of a plan of reorganization for this company:

1. That creditors of class 3, holding \$2,045,000 of first consolidated mortgage bonds, constituting (with accrued interest) 100 per cent of the total of the allowed claims of that class voting on the plan, accepted the plan;

2. That creditors of class 6, holding \$17,800,050 of general mortgage bonds, constituting (with accrued interest) 99.80 per cent of the total of the allowed claims of that class voting on the plan, accepted the plan, including in the totals the bonds deposited with the general mortgage bondholders protective committee, the holders of which failed to vote on submission of the plan, and for whom the committee submitted its vote, accepting the plan, in accordance with its agreement with the depositors, and that holders of \$34,200 of the bonds, constituting (with accrued interest) 0.20 per cent of the total of the allowed claims of that class voting on the plan, rejected the plan;

3. That creditors of class 10, collateral loans, holding \$7,462,914 of notes, constituting (with accrued interest) 100 per cent of the total of the allowed claims of that class voting on the plan, accepted the plan;

4. And that stockholders of class 11, holding 114,881 shares of preferred stock, constituting (with accumulated preferred dividends) 99.56 per cent of the total of the allowed claims of that class voting on the plan, accepted the plan, and that stockholders holding 505 shares or 0.44 per cent of the total voted against the plan.

The commission further certified that creditors of class 6, holding \$458,250 of general mortgage bonds, or 1.49 per cent of the total; that stockholders of class 11 holding 2,967 shares of preferred stock or 1.35 per cent of the total; and other claimants whose status is unknown, submitted defective ballots which could not be counted.

CHICAGO & NORTH WESTERN.—*Approval of Appointment.*—Division 4 of the Interstate Commerce Commission has found that it has no objection to Charles M. Thomson, trustee of this company, accepting the position of chairman of the board of directors of the Chicago, St. Paul, Minneapolis & Omaha if he does not receive additional compensation for the work.

CHICAGO, BURLINGTON & QUINCY.—*Abandonment.*—This company would be authorized to abandon a branch line extending from Greely Center, Nebr., northwesterly to Ericson, 17.4 miles, if Division 4 of the Interstate Commerce Commission adopts a proposed report of its Examiner Lucian Jordan.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Equipment Trust Certificates and R. F. C. Financing.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to assume liability for \$5,080,000 of 2½ per cent equipment trust certificates, maturing in 10 equal annual installments of \$508,000 on December 1 in each of the years from

1940 to 1949, inclusive. The Reconstruction Finance Corporation has been authorized to purchase the certificates at par and accrued interest for its own account.

ERIE.—New Directors.—Two officers of affiliated railroads were elected to the board of directors of the Erie on November 22. They were A. T. Lowmaster, vice-president and general manager, Chesapeake & Ohio, and R. J. Bowman, vice-president (operation), Pere Marquette. The former replaces C. E. Denney, recently-resigned Erie president and now president of the Northern Pacific, and the latter H. B. Erminger, of Chicago.

At the same meeting R. E. Woodruff, co-trustee and chief operating officer of the Erie, was named president of its wholly-owned subsidiary Chicago & Erie. This company, the owner of the Erie's main line west of Marion Junction, Ohio, is not under reorganization. H. D. Barber, vice-president (operation), Erie, was elected vice-president of the C. & E.

FORT DODGE, DES MOINES & SOUTHERN.—Ratification of Appointment of Co-trustees.—C. H. Crooks and L. J. Dickinson, former United States Senator from Iowa, have asked the Interstate Commerce Commission to ratify their appointments as co-trustees of this company in reorganization proceedings under section 77 of the Bankruptcy Act.

ILLINOIS CENTRAL.—R. F. C. Loan.—Interstate Commerce Commission Finance Director O. E. Sweet has informed this company that Division 4 cannot approve a new \$5,000,000 Reconstruction Finance Corporation loan for equipment repairs on the ground that the collateral offered is insufficient to secure the advance. The company had sought the loan to repair approximately 11,000 freight cars and 51 locomotives. The road now has loans from the R. F. C. totaling \$35,170,000 which are secured by the deposit of collateral valued at \$45,000,000. Division 4 decided that the collateral did not justify an additional loan of \$5,000,000 and offered to permit the road to withdraw its application, which it refused to do.

ILLINOIS CENTRAL.—Equipment Trust Certificates and R. F. C. Financing.—This company has been authorized by Division 4 of the Interstate Commerce Commission to assume liability for \$7,800,000 of three per cent equipment trust certificates, maturing in 30 equal semi-annual installments of \$260,000 on April 1 and October 1 in each of the years from 1940 to 1954, inclusive. The Reconstruction Finance Corporation has been authorized to purchase the certificates at par and accrued interest for its own account.

Commissioner Porter dissented, saying that he objected, as he did in a recent Seaboard Air Line equipment trust application, to the practice of allowing the financing of the entire cost of the equipment by the issuance of the certificates. "The practice of financing the entire, or nearly the entire, cost of equipment through the medium of an issue of equipment trust certificates," he wrote, "even though a portion of the

debt represented is subordinate to the remainder, in order that the balance may be sold to the investing public or to meet existing laws governing purchase by trustees, savings banks, etc., is certainly not to be commended, nor is it, in my opinion, sound financing."

"This is true because (1) in the guise of purchasing equipment under the so-called Philadelphia plan, the normal equity of approximately 20 to 25 per cent, is diverted in fact to the financing of a maintenance program; in other words, the proceeds from the sale of equipment trust certificates by the failure to establish an initial equity are diverted in part to release funds for a maintenance program; and (2) any carrier unable to maintain its property from earnings and meet the requirements of its existing debt is in no position to issue additional obligations, especially if it has fixed maturities and interest requirements."

ILLINOIS CENTRAL.—Affiliate Files Under Chandler Act.—The Chicago Memphis & Gulf, a leased line of this company, has asked the Interstate Commerce Commission to approve a plan of voluntary reorganization under the terms of the recently-enacted Chandler Act whereby it would extend the due date of \$735,000 of its first mortgage five per cent bonds from January 1, 1940, to December 31, 1962 and would reduce the interest rate on these bonds from five to three per cent for the extended period.

The petition states that the road has received assurances of acceptance of the plan by creditors holding at least 25 per cent of the total amount of claims affected. The company's line runs from Dyersburg, Tenn., to Hickman, Ky., 48.5 miles, and is leased to the Illinois Central. Its petition points out that it has not defaulted on any of its securities, but that it does not have the money to pay off the maturing bond issue and is not earning enough to pay the five per cent rate.

LOUISIANA & NORTH WEST.—Securities.—This company has been authorized by Division 4 of the Interstate Commerce Commission to issue (1) \$517,250 of general mortgage five per cent 36-year bonds; (2) \$351,730 of five per cent noncumulative 70-year income debentures; and (3) 130,723 shares of capital stock of no par value, in effecting a reorganization under section 77 of the Bankruptcy Act.

MAINE CENTRAL.—Bonds.—This company has asked the Interstate Commerce Commission for authority to use and dispose of certain of its general mortgage series A, 4½ per cent bonds, dated December 1, 1935 and due December 1, 1960, in the acquisition of \$973,200 of its six per cent secured bonds, second series, due January 1, 1959. The company proposes to acquire the entire issue of the secured bonds which are in the hands of the public for \$660,000 of general mortgage bonds plus a payment in cash of \$220,000.

Of the original issue of \$1,000,000 of the six per cent secured bonds, \$25,300 have been retired and cancelled and \$1,500 are now held in the company's treasury. As a result of the transaction the com-

pany will cancel \$974,700 of the bonds to be retired. The petition to the commission states that the retirement of the six per cent secured bonds will effect a reduction in the funded debt of \$314,700 and a reduction in the fixed charges of \$28,692 per year.

NEW YORK, NEW HAVEN & HARTFORD.—Old Colony Claim.—U. S. District Court at New Haven, Conn., has awarded the old Colony road total damages of \$39,339,161 against this road for claims based on disaffirmance of its lease of the Old Colony. The authorized claim represents loss of past and future rental incurred by the Old Colony from the date of disaffirmance, June 2, 1936, to March 1, 1992, original date of expiration. In its original decision on claims of the Old Colony for \$22,450,326, the District Court rejected claims for damages in loss of future rental payments; in this it was upheld by the U. S. Circuit Court of Appeals. But the U. S. Supreme Court subsequently reversed the ruling on the matter of future rental and remanded the case to the New Haven court for further hearings.

Observers state this decision probably will not involve payment by the New Haven of the amount of the claim to the Old Colony, since the claim could be satisfied by certain security exchange provisions, similar to treatment afforded the Providence, Warren & Bristol claim in the recently-released I. C. C. examiner's reorganization plan for the New Haven.

WESTERN PACIFIC.—Trustees Certificates and R. F. C. Loan.—This company has been authorized by Division 4 of the Interstate Commerce Commission to extend from December 1, 1939, to December 1, 1940, the date of maturity of \$10,000,000 of trustees' certificates, to bear interest during the extended period of four per cent. At the same time the Reconstruction Finance Corporation was authorized to extend for a similar period the time of payment of a loan to the company for the same amount which is secured by the trustees' certificates.

Average Prices of Stocks and Bonds

	Nov. 28	Last week	Last year
Average price of 20 representative railway stocks..	33.68	34.06	29.98
Average price of 20 representative railway bonds..	59.15	59.74	60.05

Dividends Declared

Alabama Great Southern.—Ordinary, \$5.00; Preferred, \$5.00, both payable December 23 to holders of record December 2.

Atlantic Coast Line.—\$1.00, payable December 21 to holders of record November 28.

Bangor & Aroostook.—Preferred, \$1.25, quarterly, payable January 1 to holders of record December 6.

Boston & Albany.—\$2.25, payable December 21 to holders of record November 29.

Chesapeake & Ohio.—6½%, quarterly, payable January 1 to holders of record December 12; Extra, 50c, payable December 27 to holders of record December 12; Preferred, \$1.00, quarterly, payable January 1 to holders of record December 12.

Dayton & Michigan.—8 Per Cent Preferred, \$1.00, quarterly, payable January 2 to holders of record December 15.

Erie & Pittsburgh.—8½%, quarterly, payable December 9 to holders of record November 30.

Norfolk & Western.—Extra, \$5.00, payable December 22 to holders of record December 4.

Union Pacific.—\$1.50, payable January 2 to holders of record December 2.

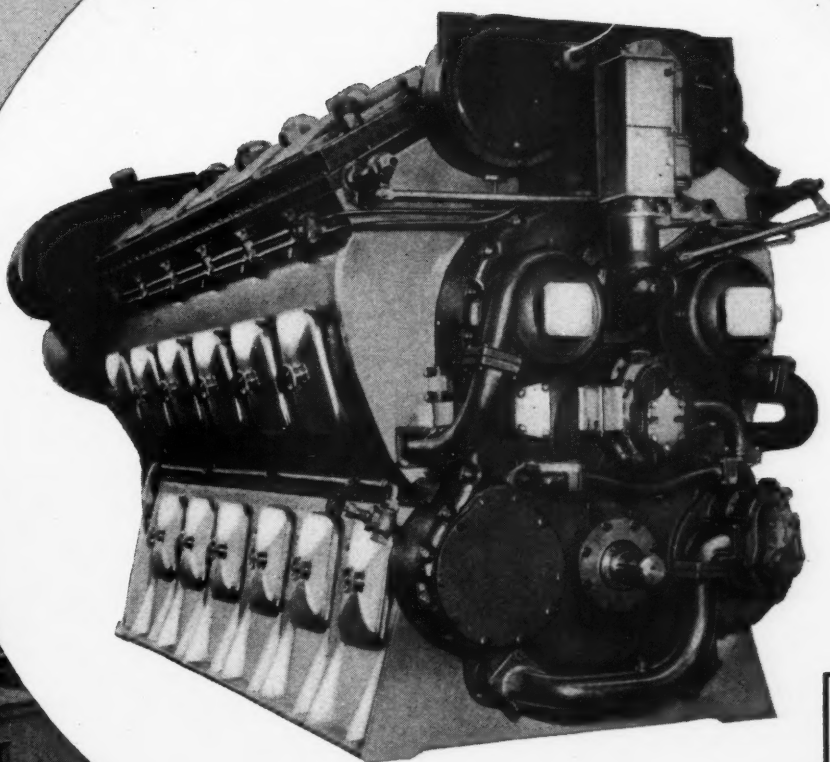
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EMC DIESELS *at a*



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a Busy Waterfront



Where

EVERY MOVEMENT MUST "CLICK"

THROUGH its Jersey City terminal the Erie Railroad handles a goodly portion of New York City's food supply. Daily hundreds of cars must be moved on floats and ferried across the Hudson like clock-work in order to avoid the heavy river and rail traffic during commuter rush hours. This calls for high terminal efficiency where car movements must "click".

EMC 1000 Hp. Switchers have been assigned to terminal operation at this important waterfront. Unobscured visibility, the characteristic of all EMC "Clear-View" type Switchers, and the complete absence of smoke and steam speed up yard movements and add materially to faster and safer operation at all times.

Performance records of over 300 EMC Diesel Switchers covering two million service hours prove an availability average of 95 per cent. In addition to maintaining this high serviceability, EMC Switchers are reducing locomotive costs from 50 to 75 per cent and frequently save \$1,000.00 per month above carrying and amortization charges.

EMC CORPORATION

LA GRANGE, ILLINOIS, U. S. A.

Railway Officers

EXECUTIVE

George H. Dugan, who has been a member of the National Railroad Adjustment Board, has returned to the service of the Southern and has been appointed assistant to vice-president, with headquarters at Washington, D. C. He will have jurisdiction over and handle such matters as are assigned to him.

FINANCIAL, LEGAL AND ACCOUNTING

G. M. White, general passenger agent of the Gulf, Mobile & Northern, has been promoted to treasurer, with headquarters as before at Mobile, Ala. The position of treasurer has been vacant since the death of **Everett M. Williams** on January 1, 1939.

OPERATING

The headquarters of **T. P. Brewster**, superintendent of telegraph of the Atchafalaya, Topeka and Santa Fe system, have been transferred from Topeka, Kansas, to Chicago.

C. J. Dunn, yardmaster on the Canadian National at Drumheller, Alta., has been appointed acting assistant superintendent, with jurisdiction over the Brazeau, Red Deer, Stetler, Three Hills and Endiang subdivisions, and with headquarters at Mirror, Alta.

Karl A. Borntrager, whose promotion to superintendent of the Ohio Central division of the New York Central, with headquarters at Columbus, Ohio, was announced in the *Railway Age* of November 4, was born at Townville, Pa., on January 2, 1892, and graduated in civil engineering from Ohio State University in 1916.



Karl A. Borntrager

He entered railway service in April, 1917, as an assistant engineer in the valuation engineer's office of the Toledo & Ohio Central (now the Ohio Central division of the N. Y. C.), at Columbus and in May,

1920, he was appointed an assistant engineer in the division engineer's office at that point. In June, 1923, Mr. Borntrager was promoted to assistant division engineer, with headquarters at Charlestown, W. Va., and on January 1, 1925, he was advanced to assistant engineer in the chief engineer's office at Columbus. In April, 1925, he was appointed resident engineer on construction, with headquarters at Toledo, Ohio, and in May, 1926, he was promoted to assistant engineer in the office of the executive vice-president, with headquarters at New York, the position he held until his recent promotion, which was effective November 1.

Sherman Smith, who has been promoted to superintendent of the Canadian National, with headquarters at Calgary, Alta., as reported in the *Railway Age* of November 4th, was born on August 26, 1879, at Omaha, Nebr., and graduated from Dartmouth College in 1903. He received the degree of Civil Engineering from Thayer School of Civil Engineering in the following year. He entered railway service in May, 1904, as an instrumentman on the Chicago & North Western, and from July,



Sherman Smith

1904, to August, 1905, was employed in the chief engineer's office of the Union Pacific at Omaha, Nebr. For the next two years he served as office engineer at Denver, Colo., and then resigned to become resident engineer on the Canadian National at Rivers, Man. He held this position until July, 1908, when he was promoted to assistant engineer at Melville, Sask. In September, 1918, he was promoted to assistant superintendent at Edson, Alta., and was transferred to Calgary in August, 1928, and to Edmonton in September, 1937.

W. A. Kirkpatrick, superintendent of car service of the Western region of the Canadian National, with headquarters at Winnipeg, Man., has been appointed chief of car service, with headquarters at Montreal, Que., effective December 1, succeeding **G. N. Goad**, who has resigned to enter commercial business after many years of service. **J. J. Behan**, district supervisor of car service, with headquarters at Montreal, succeeds Mr. Kirkpatrick as superintendent of car service at Winnipeg. Mr. Kirkpatrick was born at West Lorne, Ont., in 1883 and entered the service of

the Canadian National in 1898, later serving as operator and agent. After several years at this work in the west, he became inspector of transportation at Winnipeg in 1910 and later became assistant superin-



W. A. Kirkpatrick

tendent. In 1920 Mr. Kirkpatrick was appointed superintendent of transportation, Saskatoon district and in 1928 was transferred to the Alberta district in a similar capacity. In 1937 he was appointed superintendent of car service, Western region, at Winnipeg, which position he held until his recent appointment.

J. W. Sexton has been appointed general manager of the Macon, Dublin & Savannah, with headquarters at Macon, Ga., succeeding **F. C. Sumner**, who has been appointed superintendent of the Jacksonville, Gainesville & Gulf, with headquarters at Gainesville, Fla., succeeding **J. C. Dunn**.

S. F. Ayler, assistant superintendent of the Alexandria, La., Terminal of the Missouri Pacific, has been appointed trainmaster of the Kansas City, Osawatomie and Topeka districts of the Central Kansas division, with headquarters at Osawatomie, Kan., succeeding **M. J. Crotty**, who retired on December 1. **J. E. Harrell** has been appointed acting assistant superintendent at Alexandria relieving Mr. Ayler.

J. D. Woodall, trainmaster on the Southern at Birmingham, Ala., has been promoted to superintendent of terminals, with headquarters at Chattanooga, Tenn., succeeding **J. W. Whitaker**, deceased.

Thomas J. Kane, trainmaster on the Northern Pacific at Centralia, Wash., has been transferred to Tacoma, Wash., succeeding **Carl H. Burgess**, whose promotion to assistant superintendent at Tacoma, was announced in the *Railway Age* of November 11, and **Carl E. Dorfler**, trainmaster at Jamestown, N. D., has been transferred to Centralia replacing Mr. Kane. **Howard W. McCauley**, trainmaster-roadmaster of the Minnesota & International Railway (controlled by the Northern Pacific) with headquarters at Bemidji, Minn., has been appointed trainmaster on the Northern Pacific at Jamestown relieving Mr. Dorfler and **Douglas A. Thomson**, division roadmaster at Glendive, Mont., has been promoted to trainmaster-roadmaster of the M. & I. with

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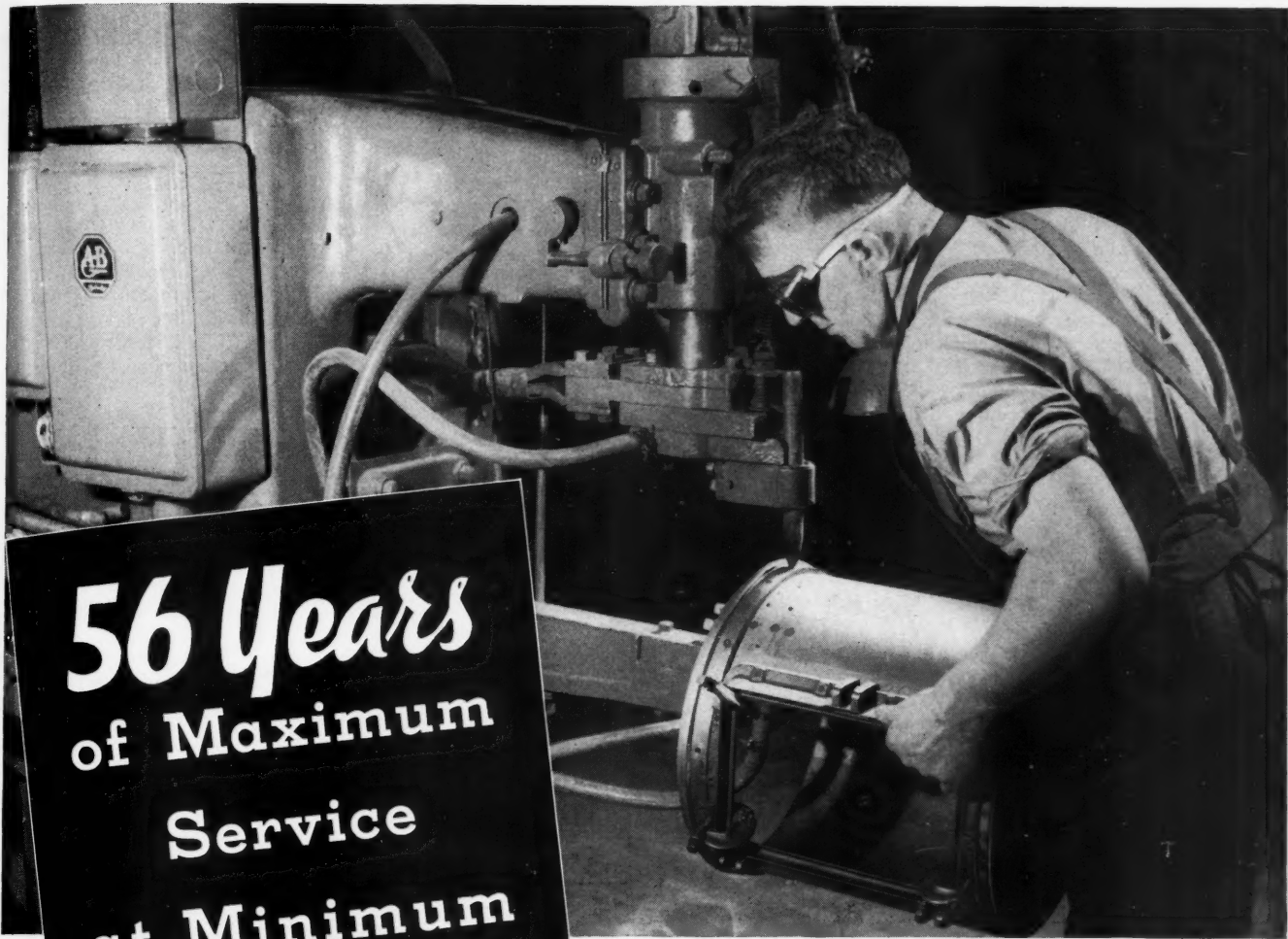
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of Maximum
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Cost**

*Typical of Sunbeam's skilled craftsmen is Ed Herschel-
man, whose 34 years of continuous service have won
for him the diamond-studded "pioneer" pin (right).
He is shown above as he spot-welds a headlight case.*



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headquarters at Bemidji succeeding Mr. McCauley.

Otto A. Beerman, assistant superintendent on the Chicago, Milwaukee, St. Paul & Pacific, at Milwaukee, Wis., has been promoted to superintendent of the Kansas City division, with headquarters at Ottumwa, Iowa, succeeding **Ray C. Dodds**, who has been transferred to the Hastings and Dakota division, with headquarters at Aberdeen, S. D., replacing **Henry M. Gillick**, whose death on November 12 was announced in the *Railway Age* of November 18. **John J. O'Toole**, assistant superintendent at Wausau, Wis., has been transferred to Milwaukee, relieving Mr. Beerman and **George F. Hancer**, trainmaster at LaCrosse, Wis., has been promoted to assistant superintendent at Wausau, succeeding Mr. O'Toole.

TRAFFIC

R. W. Nelson, assistant traffic manager of the Minneapolis & St. Louis, has been promoted to eastern traffic manager, with headquarters as before at New York.

H. B. Smith, fuel agent of the Kansas City Southern, has been appointed coal traffic manager and fuel agent, with headquarters as before at Kansas City, Mo., and **Ray Henry**, general coal agent, with headquarters at Kansas City, has been appointed assistant coal traffic manager and fuel agent, with the same headquarters.

C. W. Hoefener, commercial agent for the Burlington Lines (the Chicago, Burlington & Quincy, the Colorado & Southern, the Fort Worth & Denver City and the Wichita Valley) at Los Angeles, Cal., has been promoted to general agent at that point, succeeding **J. L. Dee**, who retired on December 1.

Stanton Curtis, general passenger agent of the Mobile & Ohio, with headquarters at St. Louis, Mo., has been appointed also general passenger agent of the Gulf, Mobile & Northern, with headquarters at St. Louis and Mobile, Ala., replacing **G. M. White**, whose promotion to treasurer of the Gulf, Mobile & Northern is announced elsewhere in these columns.

C. C. Gray, assistant freight traffic manager of the Western Maryland, with headquarters at Baltimore, Md., has been appointed freight traffic manager-solicitation, with the same headquarters, succeeding **M. H. Jacobs**, whose death was reported in the *Railway Age* of November 18. The position of assistant freight traffic manager-solicitation has been abolished.

W. E. Hines, general western agent of the Akron, Canton & Youngstown and of the Northern Ohio, has been appointed assistant general freight agent, with headquarters as before at Chicago, a change in title, and **Robert J. McMillan**, commercial agent at Chicago, has been promoted to general agent at that point. **John Y. Cassell**, general agent at Kansas City, Mo., has been appointed assistant general freight agent, with the same headquarters. **James A. Beech**, eastern freight agent, with headquarters at Akron, Ohio, has

been appointed assistant to the freight traffic manager, a newly created position. **George J. Bauer**, coal freight agent, has been appointed general coal agent, with headquarters as before at Akron, a change of title. **Albert J. Wissel**, southern freight agent, has been appointed general agent, with headquarters as before at Akron and **George C. Heidish** has been appointed general agent, with headquarters at Akron, succeeding **A. G. Anderson**.

ENGINEERING AND SIGNALING

Earl L. Mayne has been appointed office engineer in the office of the chief engineer of the Western lines of the Atchison, Topeka & Santa Fe at Amarillo, Tex., succeeding **William Pirschell**, whose death on October 23, is announced elsewhere in these columns.

The jurisdiction of **R. G. Gage**, chief electrical engineer of the Canadian National, with headquarters at Montreal, Que., has been extended to include the duties of signal engineer, following the retirement on pension of **W. M. Punter**, signal engineer at Montreal.

J. H. Oppelt, signal engineer of the New York, Chicago & St. Louis (Nickel Plate), with headquarters at Cleveland, Ohio, has been promoted to superintendent of telegraph and signals, with the same headquarters. **G. C. Todd**, superintendent of telegraph of the Nickel Plate and Lake Erie and Western districts of the Nickel Plate has retired and that position has been abolished.

MECHANICAL

John B. Neish, whose promotion to mechanical superintendent of the Northern Pacific, with headquarters at St. Paul, Minn., was announced in the *Railway Age* of November 11, was born in Dundee, Scotland on November 26, 1874, and entered railway service on May 24, 1895, as a machinist on the Northern Pacific at Sprague, Wash., later serving in that capacity at South Tacoma, Wash., and Spokane. On March 1, 1904, he was promoted to roundhouse foreman and on December 1, 1910, he was advanced to master mechanic, with headquarters at Minneapolis, Minn. In September, 1915, Mr. Neish was transferred to St. Paul and on November 1, 1929, he was further advanced to general master mechanic of the Western district, with headquarters at Seattle, Wash., the position he held until his recent promotion, which was effective November 1.

PURCHASES AND STORES

T. E. Savage, assistant purchasing agent of the Erie, has been promoted to purchasing agent with headquarters as before at Cleveland, Ohio, succeeding **Frank W. Holt**, whose death on November 11, was announced in the *Railway Age* of November 18. **F. J. Loughlin**, assistant to purchasing agent at Cleveland, has been advanced to assistant purchasing agent re-

placing Mr. Savage, and **John Tapping** and **J. F. Duffy** have been appointed assistants to the purchasing agent, with headquarters at Cleveland.

SPECIAL

R. J. O'Connor, assistant traffic manager of the Union Pacific Stages and Interstate Transit Lines, with headquarters at Omaha, Neb., has been promoted to traffic manager, with the same headquarters, succeeding **T. J. Manning**, who has resigned to enter other employment.

OBITUARY

Charles William Wheeler, general agent for the Kansas City Southern at St. Louis, Mo., died of a heart attack in that city on November 18.

D. L. Phillips, who retired in September, 1932, as land commissioner for the Missouri Pacific, with headquarters at Little Rock, Ark., died at that point on November 20, following a brief illness.

William Pirschell, office engineer in the office of the chief engineer of the Western lines of the Atchison, Topeka & Santa Fe at Amarillo, Tex., died on October 23, at the age of 55.

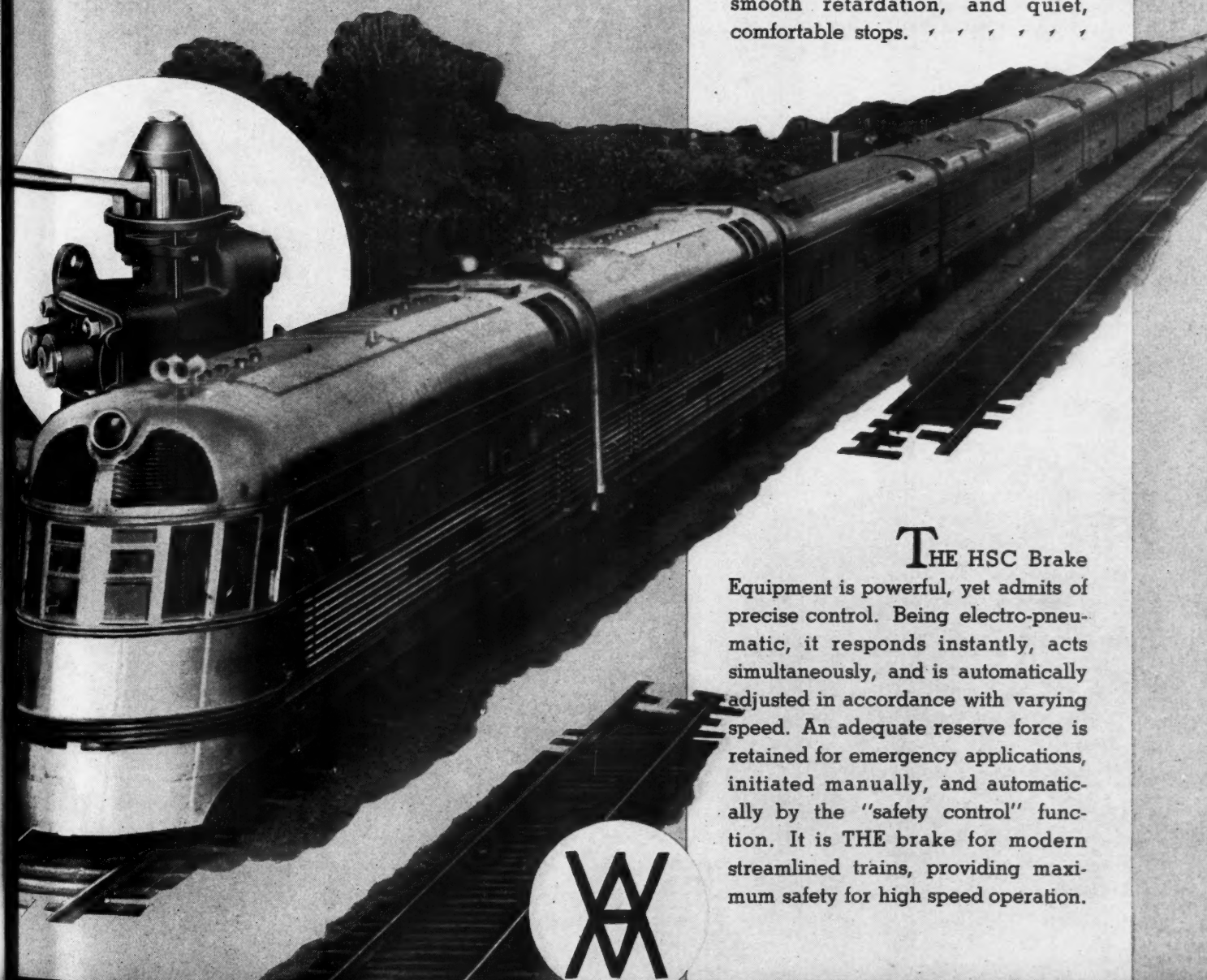
J. H. Schroeder, general foreman car department, Delaware, Lackawanna & Western, with headquarters at Kingsland, N. J., died on November 11 at the Dover (N. J.) General hospital, at the age of 68.

Arthur Munroe Kinsman, former chief engineer and engineer construction of the Baltimore & Ohio at Baltimore, Md., died on November 28 after a long illness. He was 83 years old.

Edward Hart, Jr., former freight traffic manager on the Baltimore & Ohio and of the Alton, with headquarters at Chicago, whose death on November 21, was announced in the *Railway Age* of November 25, was born at Allahabad, East India, on December 17, 1860, and entered railway service on July 1, 1880 as a clerk in the auditor's office of the Louisville & Nashville. He subsequently served in various clerical capacities on that road, the Louisville, New Albany & St. Louis (now part of the Southern) and the Canada Southern Line (now part of the Michigan Central). From 1885 until 1897, he served as contracting agent for the Canada Southern and as an agent on various roads, becoming on the latter date general agent for the Baltimore & Ohio Southwestern (now Baltimore & Ohio). In January, 1902, he was advanced to assistant general freight agent at St. Louis, Mo., and in January, 1913, he was appointed western general freight agent. Mr. Hart was promoted to general freight agent in March, 1920, and in January, 1923, to assistant freight traffic manager, with headquarters as before at St. Louis. He was transferred to Chicago in July, 1924, and in June, 1933, he was promoted to freight traffic manager on the B. & O. and the Alton, with the same headquarters, the position he held until his retirement on January 1, 1937.

Safety

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NOTHING short of the best available brake control is adequate for today's high speed passenger trains. The maximum degree of Safety is none too good for the patrons of your modernized transportation. A brake as up-to-date as any other element is needed to provide ample comfort and security. The Westinghouse electro-pneumatic HSC Equipment takes its place with shapely lines and de luxe accommodations as a vital means of providing complete satisfaction for travelers on your swiftly moving carriers. It assures smooth retardation, and quiet, comfortable stops.

THE HSC Brake Equipment is powerful, yet admits of precise control. Being electro-pneumatic, it responds instantly, acts simultaneously, and is automatically adjusted in accordance with varying speed. An adequate reserve force is retained for emergency applications, initiated manually, and automatically by the "safety control" function. It is THE brake for modern streamlined trains, providing maximum safety for high speed operation.

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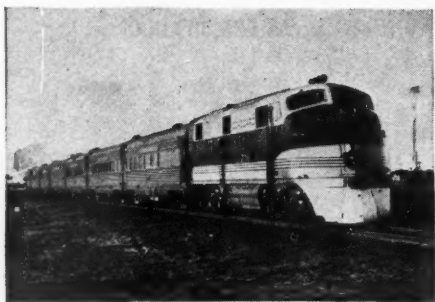
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Freight Operating Statistics of Large Steam Railways—Selected Items for the Month of September.

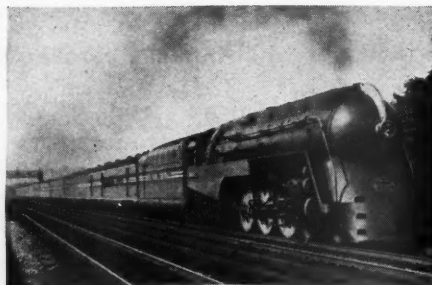
Region, road, and year	Miles of road operated	Train-miles	Locomotive-miles		Car-miles		Ton-miles (thousands)		Number of road locomotives on line					
			Principal and helper	Light	Loaded (thousands)	Per cent loaded	Gross, excluding locomotives and tenders	Net, revenue and non-revenue	Serviceable		Un-serviceable	Per cent un-serviceable		
									Not stored	Stored				
New England Region:														
Boston & Albany.....1939	362	131,172	135,193	9,146	3,022	69.5	167,588	62,260	53	6	29	33.0		
1938	374	80,095	83,013	5,801	1,785	69.8	96,629	34,303	49	6	35	38.9		
Boston & Maine.....1939	1,915	267,572	302,358	26,120	9,809	70.9	544,455	209,358	119	..	52	30.4		
1938	1,937	192,623	213,111	15,772	6,734	74.6	354,319	137,942	122	1	111	47.4		
N. Y., New Hav. & Hartf..1939	1,846	323,654	405,271	27,896	12,260	69.5	659,670	258,758	184	8	70	27.9		
1938	1,866	239,447	304,247	20,797	8,305	70.8	433,949	167,021	181	6	86	36.0		
Great Lakes Region:														
Delaware & Hudson.....1939	847	256,774	335,738	30,432	9,104	69.6	558,637	281,228	137	37	72	29.3		
1938	830	198,023	263,308	25,067	7,077	71.6	412,715	201,727	122	95	46	17.5		
Del., Lack. & Western....1939	983	348,702	404,455	60,940	13,476	71.1	778,691	327,328	133	1	75	35.9		
1938	983	293,618	333,818	46,052	10,618	69.7	604,488	236,188	121	6	84	39.8		
Erie (incl. Chi. & Erie)...1939	2,290	702,037	752,239	52,780	32,486	67.7	2,007,958	776,479	237	6	172	41.4		
1938	2,275	597,205	636,158	39,352	26,454	66.6	1,638,437	599,714	216	29	224	47.8		
Grand Trunk Western....1939	1,023	234,694	236,701	2,417	6,894	66.1	410,235	151,770	71	..	32	31.1		
1938	1,027	213,178	215,544	1,766	5,551	65.1	331,949	118,975	65	1	48	42.1		
Lehigh Valley1939	1,265	310,054	345,660	54,901	13,573	67.8	844,030	370,378	114	..	110	49.1		
1938	1,268	266,491	295,229	45,776	11,080	67.5	682,128	292,542	118	3	114	48.5		
New York Central.....1939	10,608	2,600,769	2,785,550	183,983	93,460	62.2	6,308,426	2,752,336	933	55	447	31.1		
1938	10,651	2,260,649	2,402,034	162,261	76,745	61.9	5,094,961	2,172,232	791	173	491	33.7		
N. Y., Chicago & St. Louis.1939	1,672	487,494	493,203	6,796	19,227	67.4	1,127,357	440,097	156	8	34	17.2		
1938	1,672	443,837	450,351	5,927	16,081	63.9	967,651	356,177	140	20	38	19.2		
Pere Marquette1939	2,081	342,293	352,290	6,749	9,897	65.8	620,250	252,769	116	2	38	24.4		
1938	2,081	284,153	293,941	5,783	7,935	63.0	509,577	203,896	98	10	56	34.1		
Pittsburgh & Lake Erie....1939	233	74,470	76,910	20	3,416	62.7	299,549	176,331	35	2	28	43.1		
1938	233	61,213	62,412	..	2,643	62.1	225,117	128,150	37	..	37	50.0		
Wabash1939	2,397	551,021	562,166	12,970	18,562	69.7	1,075,597	404,098	132	11	127	47.0		
1938	2,421	494,796	504,115	11,066	15,722	67.3	918,205	329,264	127	15	137	49.1		
Central Eastern Region:														
Baltimore & Ohio.....1939	6,269	1,489,917	1,872,777	220,466	51,327	65.3	3,510,818	1,657,745	690	35	494	40.5		
1938	6,311	1,277,891	1,575,065	167,614	41,436	62.9	2,822,570	1,261,076	586	143	511	41.2		
Central of New Jersey....1939	679	160,929	185,189	32,781	5,562	63.6	385,224	191,415	72	5	80	51.0		
1938	679	133,893	155,062	30,228	4,452	63.5	298,730	141,305	71	4	78	51.0		
Chicago & Eastern Illinois.1939	927	158,700	158,832	2,685	4,436	70.7	266,118	117,878	48	3	40	44.0		
1938	927	154,485	154,687	2,540	3,950	67.3	240,445	100,945	54	1	52	48.6		
Elgin, Joliet & Eastern....1939	390	94,689	96,132	1,719	2,423	60.1	186,696	90,817	60	3	19	23.2		
1938	435	76,293	77,090	693	1,831	59.5	138,960	66,143	43	7	33	39.8		
Long Island1939	375	24,264	25,461	15,766	273	51.4	21,039	8,210	36	3	9	18.8		
1938	390	27,662	28,533	15,010	256	51.9	19,564	7,472	29	11	8	16.7		
Pennsylvania System1939	9,998	2,722,102	3,357,273	411,318	115,394	65.0	7,774,510	3,613,557	1,168	16	1,074	47.6		
1938	10,014	2,298,124	2,805,861	320,657	90,984	63.2	6,019,586	2,637,140	1,096	289	986	41.4		
Reading1939	1,442	394,110	437,798	51,734	12,334	66.4	866,436	437,220	205	3	152	42.2		
1938	1,442	326,107	365,399	44,431	9,931	62.9	700,168	336,122	176	32	145	41.1		
Pocahontas Region:														
Chesapeake & Ohio1939	3,049	918,846	973,160	44,696	45,257	57.3	3,825,846	2,101,624	407	18	102	19.4		
1938	3,050	802,860	841,583	38,086	37,410	56.4	3,184,284	1,749,611	346	42	141	26.7		
Norfolk & Western.....1939	2,169	723,092	759,972	44,230	33,601	59.0	2,805,156	1,513,179	305	24	27	7.6		
1938	2,178	623,407	648,126	32,899	27,067	58.8	2,212,812	1,164,588	265	63	35	9.6		
Southern Region:														
Atlantic Coast Line.....1939	5,077	505,091	510,105	7,276	11,215	63.0	663,132	241,625	230	46	97	26.0		
1938	5,079	459,914	463,332	6,957	10,436	64.4	592,267	208,482	237	46	93	24.7		
Central of Georgia.....1939	1,838	250,149	251,333	3,143	5,710	74.7	308,522	124,832	94	..	26	21.1		
1938	1,886	225,288	226,474	3,309	5,040	71.9	271,685	103,098	91	..	33	26.6		
Illinois Central (inc. Y. & M. V.)1939	6,537	1,274,666	1,285,013	24,237	39,964	66.0	2,541,035	1,110,441	543	70	235	27.7		
1938	6,540	1,227,754	1,233,310	22,128	34,992	63.5	2,254,434	947,690	610	28	229	26.4		
Louisville & Nashville....1939	4,897	1,121,689	1,213,329	32,815	30,180	62.1	2,119,118	1,045,448	336	4	200	37.0		
1938	4,928	1,002,014	1,083,648	30,283	25,330	60.1	1,786,925	856,564	335	19	193	35.3		
Seaboard Air Line.....1939	4,305	453,682	479,561	4,478	12,274	66.2	711,446	282,154	217	25	54	18.1		
1938	4,305	430,090	447,324	5,057	10,917	66.2	630,857	244,075	208	28	71	23.2		
Southern1939	6,491	1,343,854	1,365,077	20,736	32,539	70.0	1,843,544	759,492	486	5	157	24.2		
1938	6,561	1,229,356	1,246,798	19,297	28,249	67.0	1,627,839	644,359	480	21	200	28.5		
Northwestern Region:														
Chicago & North Western..1939	8,326	920,911	946,569	21,967	28,717	64.6	1,804,525	703,566	329	43	292	44.0		
1938	8,388	848,133	880,951	23,320	24,578	62.9	1,561,398	540,738	315	143	234	33.8		
Chicago Great Western....1939	1,450	270,183	273,906	8,699	8,351	63.8	514,516	187,807	70	..	15	17.6		
1938	1,450	253,259	255,219	13,851	7,443	62.8	458,845	162,648	63	2	28	30.1		
Chi., Milw., St. P. & Pac..1939	10,882	1,310,157	1,366,856	54,226	38,975	63.2	2,493,974	1,031,774	467	37	155	23.5		
1938	10,941	1,228,575	1,271,167	47,568	34,077	61.3	2,236,576	909,175	439	94	131	19.7		
Chi., St. P., Minneap. & Om.1939	1,619	227,995	238,074	10,782	5,607	69.1	341,621	157,496	112	13	13	9.4		
1938	1,619	209,700	218,139	10,880	4,833	65.0	300,919	123,719	111	18	14	9.8		
Great Northern1939	7,976	967,769	967,576	33,329	35,069	57.8	2,579,325	1,141,440	395	9	133	24.8		
1938	7,976	933,540	935,763	29,990	31,928	57.4	2,352,520	1,020,079	393	23	134	24.4		
Minneap., St. P. & S. St. M..1939	4,265	404,669	411,167	4,915	10,544	64.8	655,663	289,104	123	..	21	14.6		
1938	4,273	365,396	370,119	3,458	8,322	65.7	504,210	211,339	122	1	26	17.4		
Northern Pacific1939	6,423	732,945	780,218	44,529	25,364	65.5	1,597,206	673,193	345	8	89	20.1		
1938	6,423	669,034	706,118	34,908	21,887	65.8	1,351,545	555,345	331	20	110	23.9		
Central Western Region:														
Alton1939	914	221,563	239,832	1,557	5,209	67.7	325,307	127,019	60	10	18	20.5		
1938	912	195,471	209,606	1,102	4,277	63.6	268,560	97,785	50	17	25	27.2		
Atch., Top. & S. Fe. (incl. G. C. & S. F. & P. & S. F.) 1939	13,447	1,892,798	2,032,350	100,565	57,079	64.6	3,573,930	1,198,113	613	44	226	25.6		
1938	13,500	1,765,663	1,899,402	89,781	50,742	62.2	3,252,074	1,054,125	569	62	286	31.2		
Chicago, Burl. & Quincy...1939	8,992	1,264,925	1,310,723	50,643	38,763	63.6	2,443,479	971,565	464	13	87	15.4		
1938	8,928	1,168,567	1,204,220	40,213	34,348	60.9	2,207,938	853,069	440	34	85	15.2		
Chi., Rock I. & Pac. (inc. Chi., Rock														

1939, Compared with September, 1938, for Roads with Annual Operating Revenues above \$25,000,000

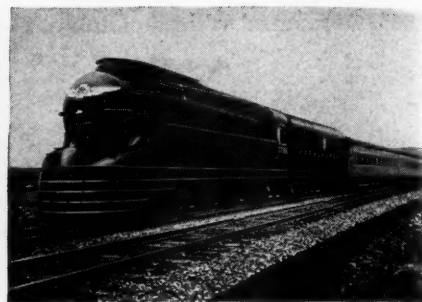
Region, road, and year	Number of freight cars on line			Per cent un-serv-ice-able	Gross ton-miles per train-hour, excluding locomotives and tenders		Net ton-miles per train-mile	Net ton-miles per loaded car-mile	Net ton-miles per car-day	Car-miles per car-day	Net ton-miles per mile of road per day	Pounds of coal per 1,000 gross ton-miles, including locomotives and tenders	Loco-motive-miles per locomotive-day
	Home	Foreign	Total		Gross ton-miles per train-hour, excluding locomotives and tenders	Gross ton-miles per train-mile, excluding locomotives and tenders							
New England Region:													
Boston & Albany.....1939	1,008	4,706	5,714	2.2	20,962	1,303	484	20.6	384	26.8	5,733	150	58.9
1938	853	3,506	4,359	2.8	19,074	1,224	434	19.2	269	20.0	3,057	164	35.6
Boston & Maine.....1939	5,037	8,412	13,449	5.1	27,548	2,044	786	21.3	550	36.3	3,644	90	68.8
1938	7,573	10,309	17,882	9.7	24,058	1,851	721	20.5	282	18.5	2,374	97	35.6
N. Y., New Hav. & Hartf..1939	5,325	14,793	20,118	7.3	28,596	2,071	813	21.1	455	31.0	4,672	95	62.8
1938	9,414	17,521	26,935	11.1	24,502	1,853	713	20.1	247	17.4	2,984	104	44.3
Great Lakes Region:													
Delaware & Hudson.....1939	5,890	5,329	11,219	3.1	34,163	2,191	1,103	30.9	814	37.8	11,068	102	52.4
1938	8,251	3,037	11,288	4.9	28,783	2,099	1,026	28.5	584	28.6	8,101	103	38.9
Del., Lack. & Western.....1939	8,766	9,024	17,790	10.4	39,061	2,263	951	24.3	613	35.5	11,100	117	77.7
1938	11,532	6,631	18,163	18.3	36,571	2,091	817	22.2	433	27.9	8,009	126	62.6
Erie (incl. Chi. & Erie)....1939	13,043	18,277	31,320	2.8	48,863	2,881	1,114	23.9	861	53.2	11,302	87	66.5
1938	15,997	14,545	30,542	6.8	46,722	2,767	1,013	22.7	654	43.3	8,787	88	53.0
Grand Trunk Western.....1939	3,737	6,787	10,524	11.1	33,676	1,760	651	22.0	483	33.2	4,945	88	86.5
1938	5,361	5,466	10,827	16.3	32,187	1,568	562	21.4	369	26.5	3,862	92	70.9
Lehigh Valley1939	7,859	11,346	19,205	2.0	50,699	2,755	1,209	27.3	689	37.2	9,760	99	62.9
1938	10,623	9,872	20,495	8.1	46,648	2,581	1,107	26.4	493	27.7	7,690	102	51.7
New York Central.....1939	76,838	76,710	153,548	16.7	39,612	2,452	1,070	29.4	599	32.7	8,649	91	77.7
1938	96,866	64,032	160,898	21.8	36,485	2,280	972	28.3	456	26.1	6,798	96	66.1
N. Y., Chicago & St. Louis.1939	4,485	8,878	13,363	3.3	42,008	2,319	904	22.9	1,083	70.1	8,774	80	91.4
1938	6,866	7,022	13,888	5.9	40,361	2,184	804	22.1	847	59.8	7,101	81	83.3
Pere Marquette1939	7,043	9,005	16,048	3.6	30,212	1,818	741	25.5	534	31.8	4,049	85	83.9
1938	9,862	5,795	15,657	4.8	28,447	1,796	719	25.7	431	26.6	3,266	84	68.9
Pittsburgh & Lake Erie....1939	8,231	8,855	17,086	37.5	52,989	4,034	2,375	51.6	338	10.4	25,226	74	39.7
1938	8,636	8,373	17,009	38.7	51,175	3,678	2,094	48.5	247	8.2	18,333	76	31.1
Wabash1939	11,428	11,713	23,141	12.0	39,294	1,967	739	21.8	560	36.9	5,619	102	75.1
1938	16,137	8,555	24,692	9.8	37,541	1,871	671	20.9	451	32.0	4,533	104	65.1
Central Eastern Region:													
Baltimore & Ohio.....1939	46,167	34,045	80,212	16.1	31,603	2,396	1,132	32.3	683	32.4	8,815	124	61.9
1938	58,423	23,518	81,941	21.6	29,971	2,239	1,000	30.4	514	26.8	6,661	129	50.5
Central of New Jersey.....1939	8,705	12,960	21,665	27.3	30,996	2,539	1,262	34.4	305	13.9	9,397	120	59.5
1938	10,254	10,586	20,840	32.2	27,291	2,388	1,130	31.7	233	11.6	6,937	128	51.9
Chicago & Eastern Illinois.1939	2,995	3,396	6,391	6.0	29,106	1,680	744	26.6	626	33.3	4,239	108	62.0
1938	3,286	2,744	6,030	14.1	28,351	1,561	655	25.6	564	32.8	3,630	115	52.0
Elgin, Joliet & Eastern.....1939	7,853	4,983	12,836	4.2	18,439	2,026	986	37.5	255	11.3	7,762	107	55.7
1938	8,551	2,525	11,076	9.4	17,023	1,864	887	36.1	201	9.3	5,068	109	44.3
Long Island1939	127	3,545	3,672	1.6	5,859	908	355	30.1	80	5.2	730	298	43.2
1938	362	3,752	4,114	3.3	5,232	729	278	29.2	67	4.4	639	293	44.8
Pennsylvania System1939	182,264	61,805	244,069	21.5	40,934	2,921	1,358	31.3	484	23.8	12,048	99	61.6
1938	200,373	51,498	251,871	19.3	38,321	2,661	1,166	29.0	345	18.9	8,778	104	49.2
Reading1939	24,106	14,163	38,269	25.2	28,205	2,209	1,115	35.4	386	16.4	10,107	120	50.7
1938	24,467	9,811	34,278	21.7	26,894	2,152	1,033	33.8	317	14.9	7,777	126	42.8
Pocahontas Region:													
Chesapeake & Ohio1939	38,369	15,030	53,399	1.7	59,797	4,220	2,318	46.4	1,305	49.0	22,976	65	71.9
1938	42,998	11,952	54,950	4.0	58,121	3,996	2,196	46.8	1,055	40.0	19,121	68	61.1
Norfolk & Western.....1939	28,741	6,804	35,545	2.8	59,469	3,927	2,118	45.0	1,386	52.2	23,255	82	81.1
1938	34,692	5,784	40,476	1.7	52,527	3,593	1,891	43.0	938	37.1	17,824	90	68.1
Southern Region:													
Atlantic Coast Line.....1939	13,730	6,897	20,627	20.4	22,935	1,315	479	21.5	383	28.3	1,586	103	49.4
1938	17,020	6,661	23,681	23.0	21,279	1,290	454	20.0	295	22.9	1,368	104	45.4
Central of Georgia.....1939	3,442	3,846	7,288	2.0	23,672	1,239	502	21.9	601	36.8	2,264	111	77.6
1938	4,457	2,586	7,043	1.9	22,794	1,209	459	20.5	481	32.7	1,822	114	67.6
Illinois Central (inc. Y. & M. V.).....1939	22,872	23,190	46,062	1.8	30,387	2,008	878	27.8	829	45.2	5,662	114	56.2
1938	27,935	17,998	45,933	3.9	27,585	1,846	776	27.1	660	38.3	4,830	117	53.0
Louisville & Nashville.....1939	31,427	10,714	42,141	23.5	29,627	1,893	934	34.6	805	37.4	7,116	111	81.2
1938	35,061	9,929	44,990	21.8	27,414	1,785	856	33.8	619	30.5	5,794	117	71.5
Seaboard Air Line.....1939	9,714	6,488	16,202	4.3	25,969	1,579	626	23.0	598	39.3	2,185	112	60.3
1938	10,604	4,539	15,143	3.9	23,770	1,488	576	22.4	540	36.5	1,890	114	55.0
Southern1939	21,719	18,416	40,135	12.1	23,889	1,382	569	23.3	628	38.4	3,900	129	74.3
1938	20,108	18,190	38,298	9.8	22,695	1,334	528	22.8	571	37.3	3,274	133	63.1
Northwestern Region:													
Chicago & North Western..1939	37,114	24,321	61,435	8.8	30,632	2,023	789	24.5	398	25.1	2,817	104	53.0
1938	40,290	21,603	61,893	9.5	28,969	1,917	664	22.0	296	21.4	2,148	105	47.9
Chicago Great Western.....1939	1,821	4,669	6,490	1.2	35,066	1,906	696	22.5	981	68.3	4,317	114	115.2
1938	2,612	3,712	6,324	2.7	32,772	1,817	644	21.9	878	64.0	3,739	117	102.4
Chi., Milw., St. P. & Pac..1939	38,980	21,647	60,627	2.9	30,458	1,916	793	26.5	556	33.2	3,160	110	78.7
1938	45,976	17,471	63,447	3.2	29,151	1,831	744	26.7	471	28.8	2,770	111	72.5
Chi., St. P., Minneap. & Om.1939	2,985	6,461	9,446	8.4	19,591	1,523	702	28.1	558	28.8	3,243	103	64.5
1938	3,234	5,809	9,043	7.9	18,667	1,454	598	25.6	446	26.8	2,547	101	57.5
Great Northern1939	35,895	13,883	49,778	5.0	39,103	2,683	1,187	32.5	730	38.8	4,770	92	67.8
1938	37,271	15,363	52,634	5.4	35,246	2,540	1,101	31.9	625	34.1	4,263	99	65.1
Minneap., St. P. & S. St. M.1939	11,155	5,076	16,231	5.0	25,898	1,627	717	27.4	577	32.4	2,260	89	98.7
1938	12,850	3,793	16,643	4.9	22,387	1,382	579	25.4	414	24.8	1,649	92	83.8
Northern Pacific1939	28,534	7,409	35,943	10.3	33,410	2,190	923	26.5	608	35.0	3,494	128	68.4
1938	31,324	6,383	37,707	8.8	30,958	2,026	832	25.4	488	29.2	2,882	129	60.0
Central Western Region:													
Alton1939	1,449	5,967	7,416	14.4	35,878	1,491	582	24.4	555	33.6	4,632	112	97.0
1938	1,532	5,850	7,382	10.0	33,549	1,384	504	22.9	422	29.0	3,574	114	79.0
Atch., Top. & S. Fe. (incl. G. C. & S. F. & P. & S. F.)..1939	65,744	13,416	79,160	10.6	35,953	1,898	636	21.0	481	35.5	2,970	109	85.0
1938	74,809	11,846	86,655	10.3	35,267	1,848	599	20.8	402	31.1	2,603	110	76.2
Chicago, Burl. & Quincy...1939	24,807	19,290	44,097	6.4	33,471	1,940	771	25.1					



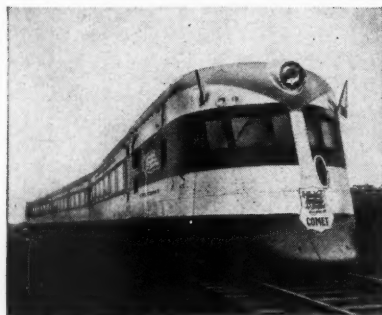
Silver Meteor, Seaboard



Twentieth Century Limited, New York Central



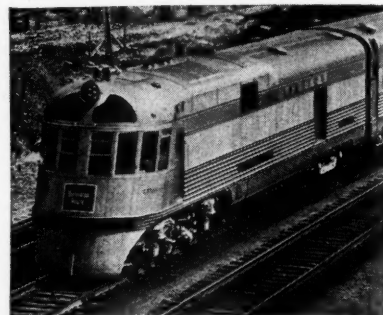
Broadway Limited, Pennsylvania



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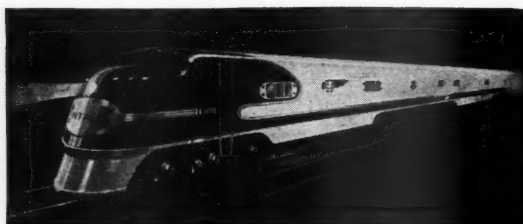
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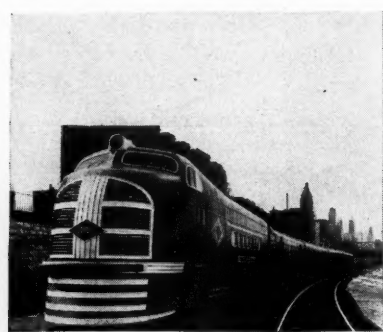
Burlington Zephyrs



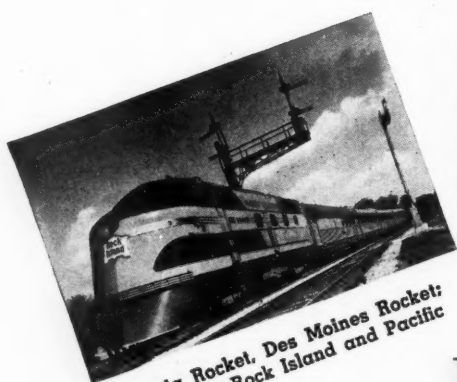
Mercury, New York Central



Super Chief, Santa Fe



Green Diamond, Illinois Central



Peoria Rocket, Des Moines Rocket;
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